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THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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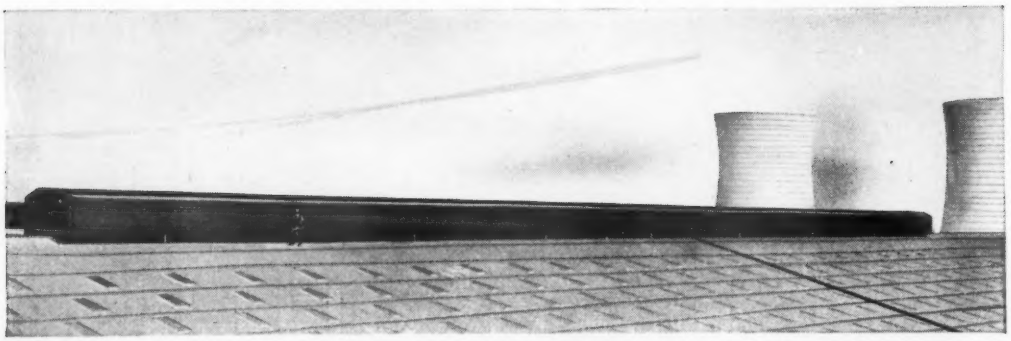
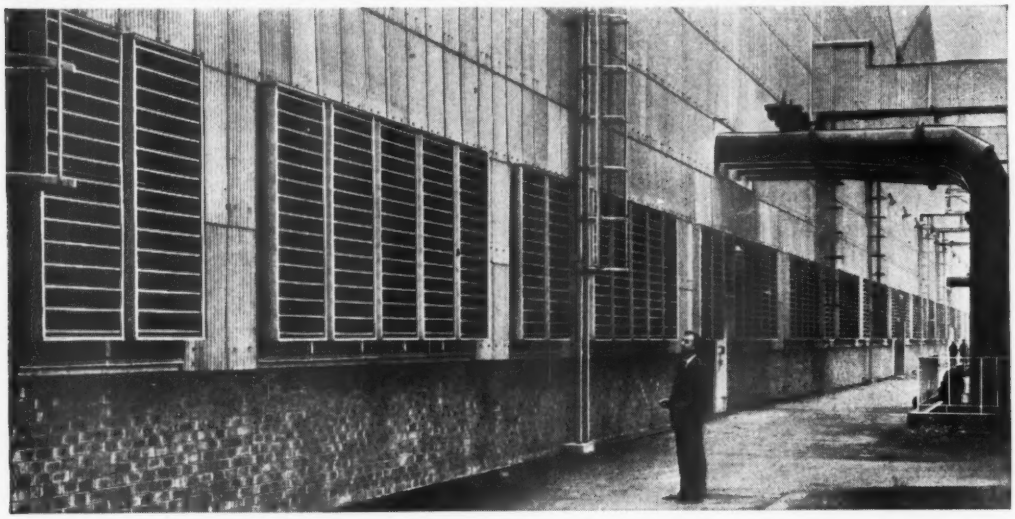
Central Station, Newcastle. Architect: John Dobson

Edwin Smith





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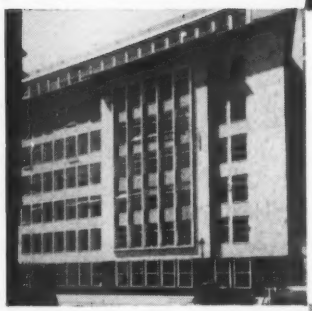

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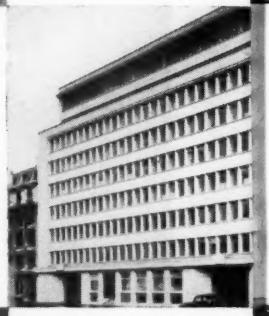

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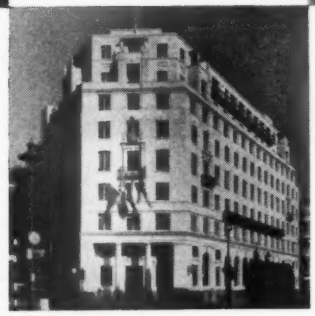

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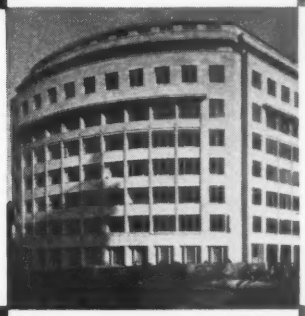

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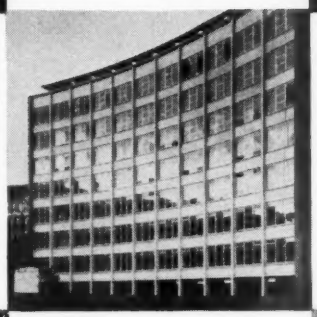

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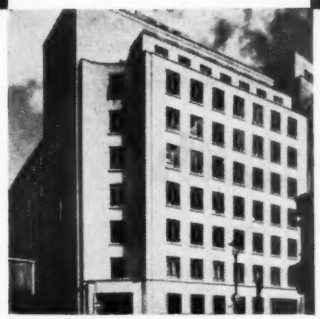

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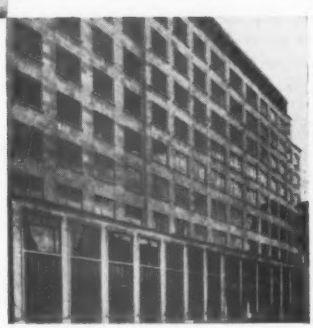

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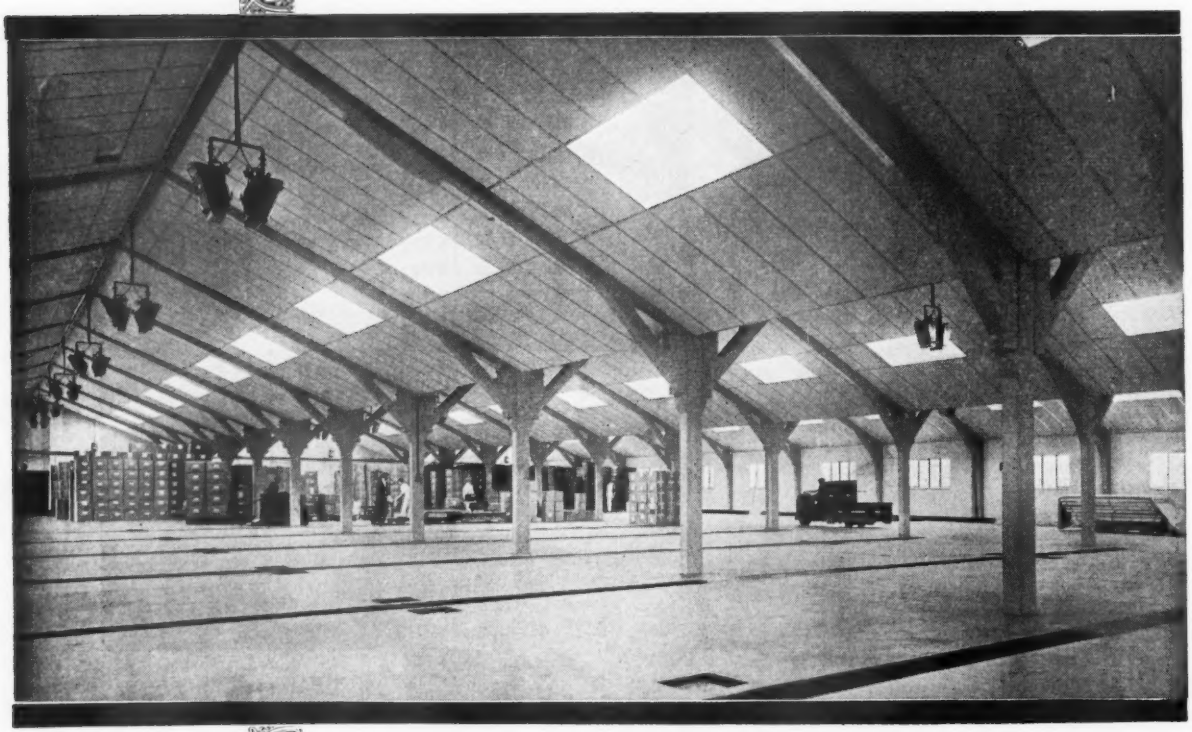

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COVERAGE: 4,000 sq. ft.
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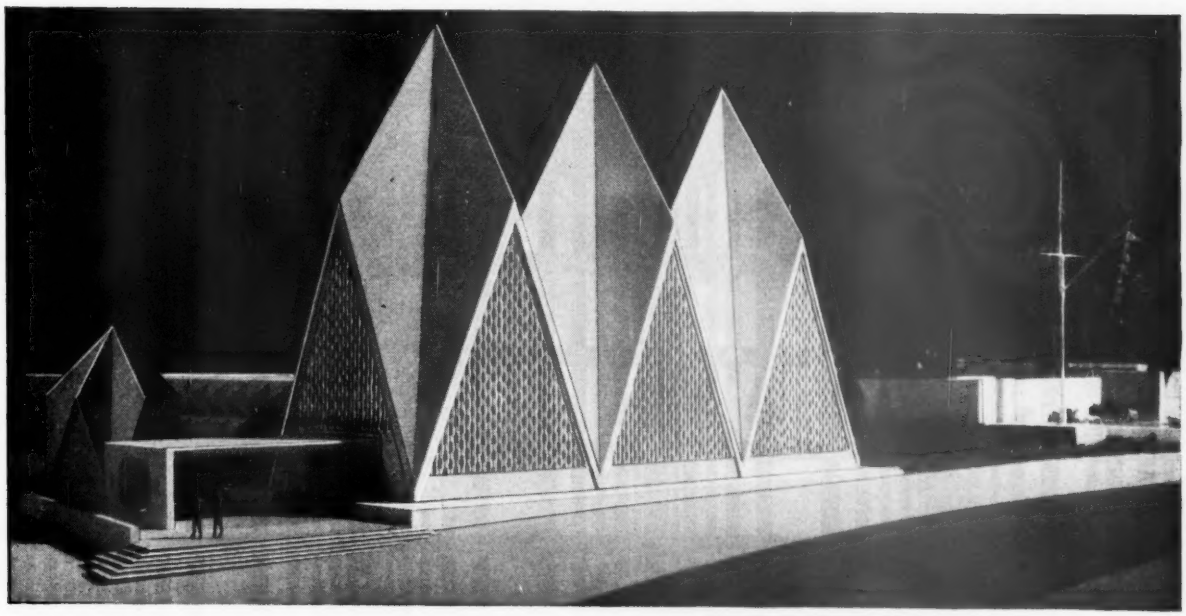

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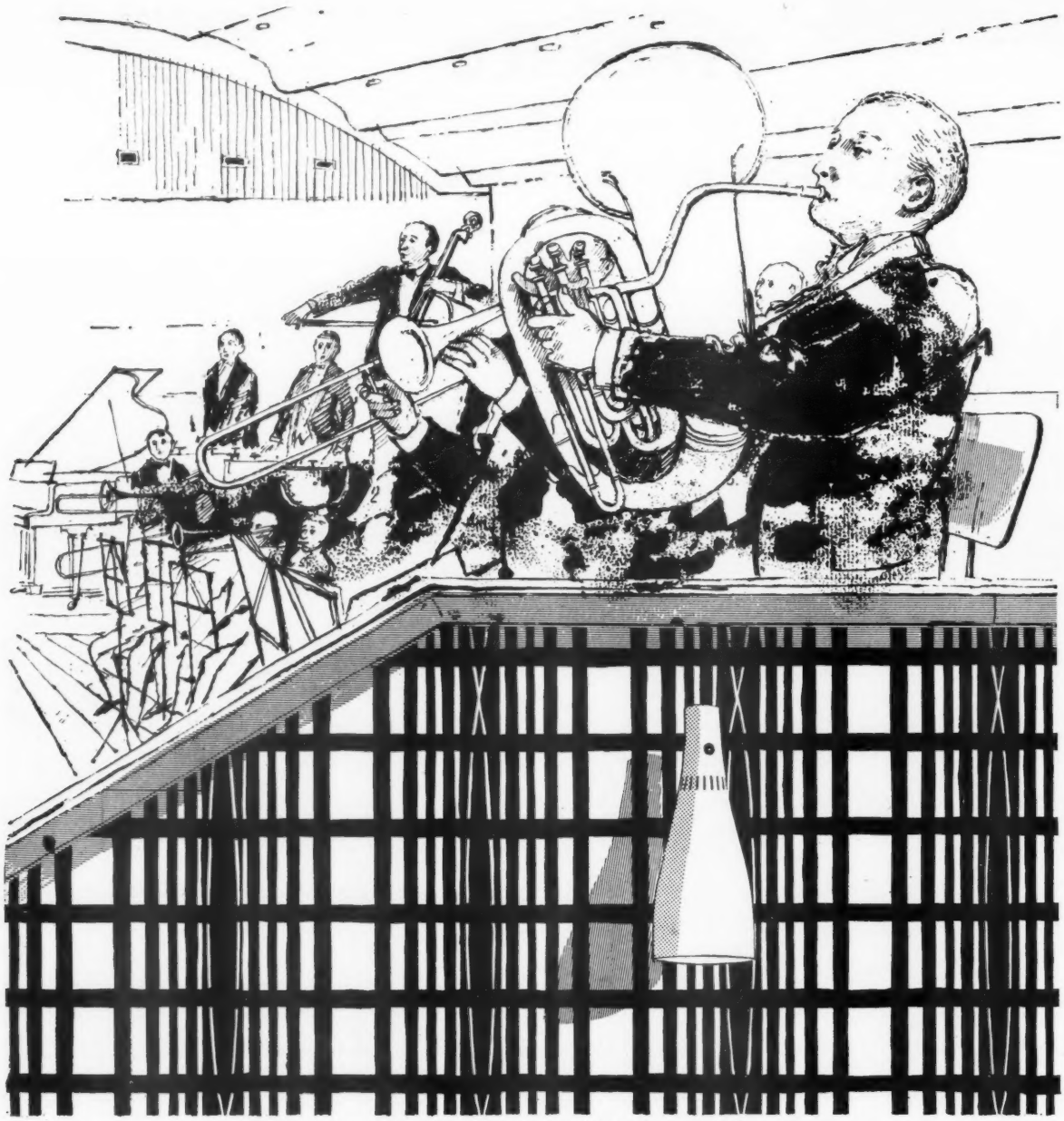

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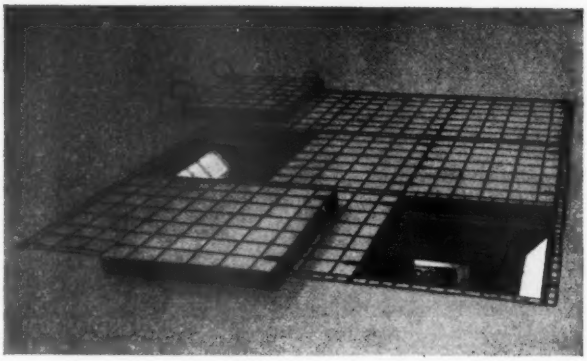

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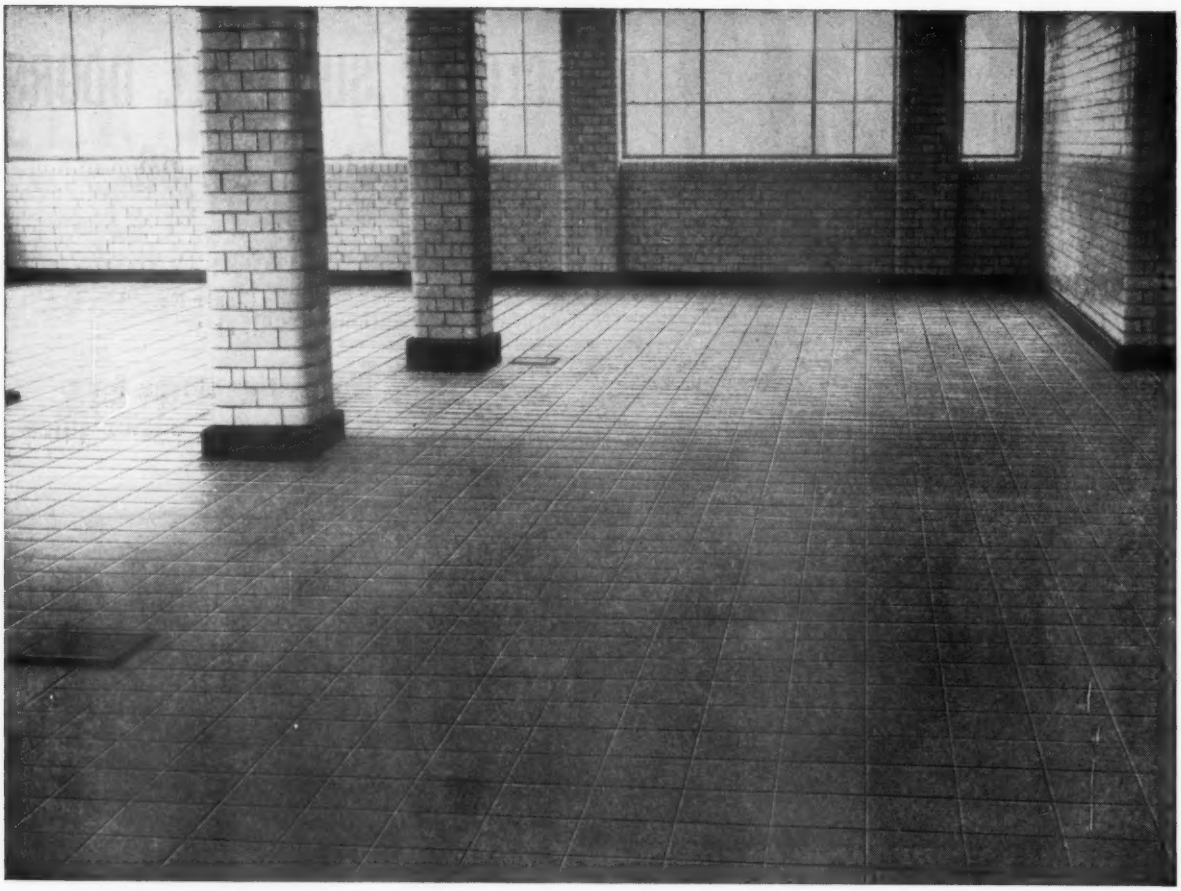

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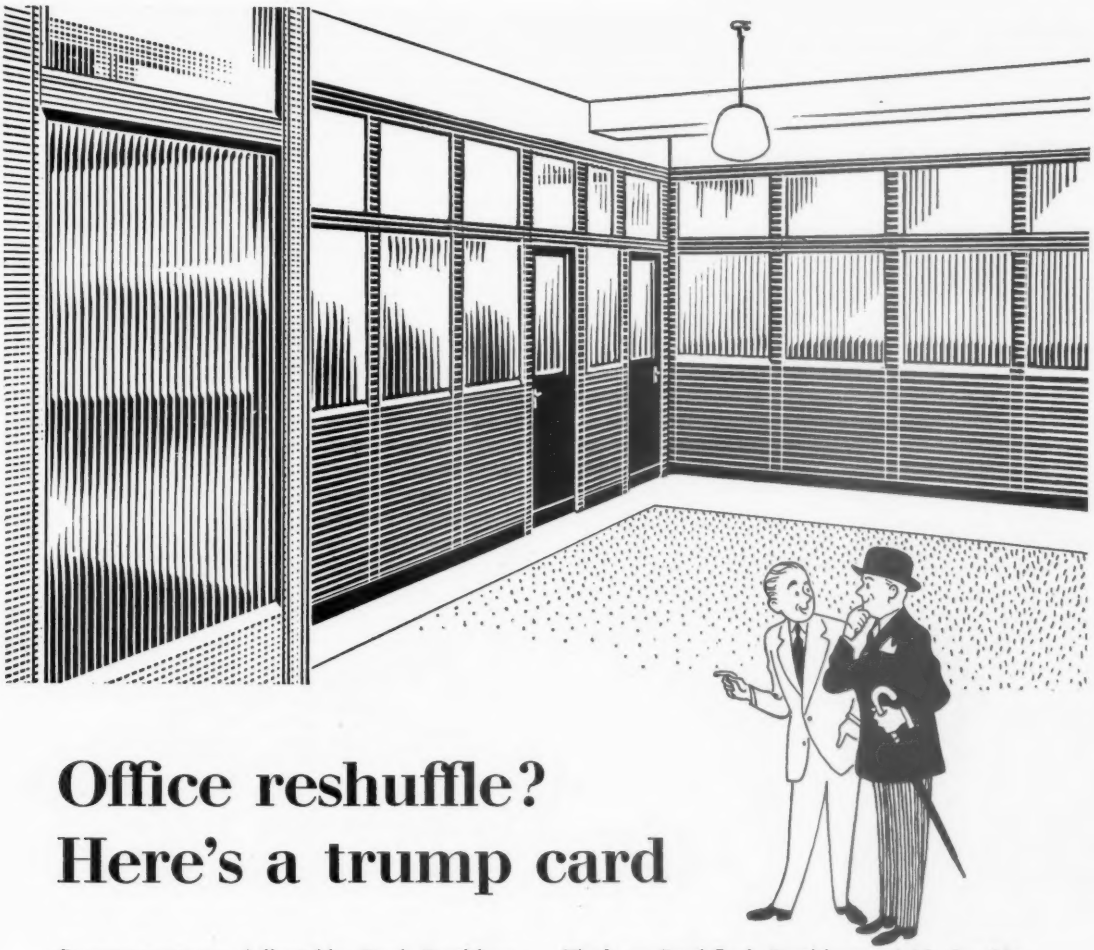

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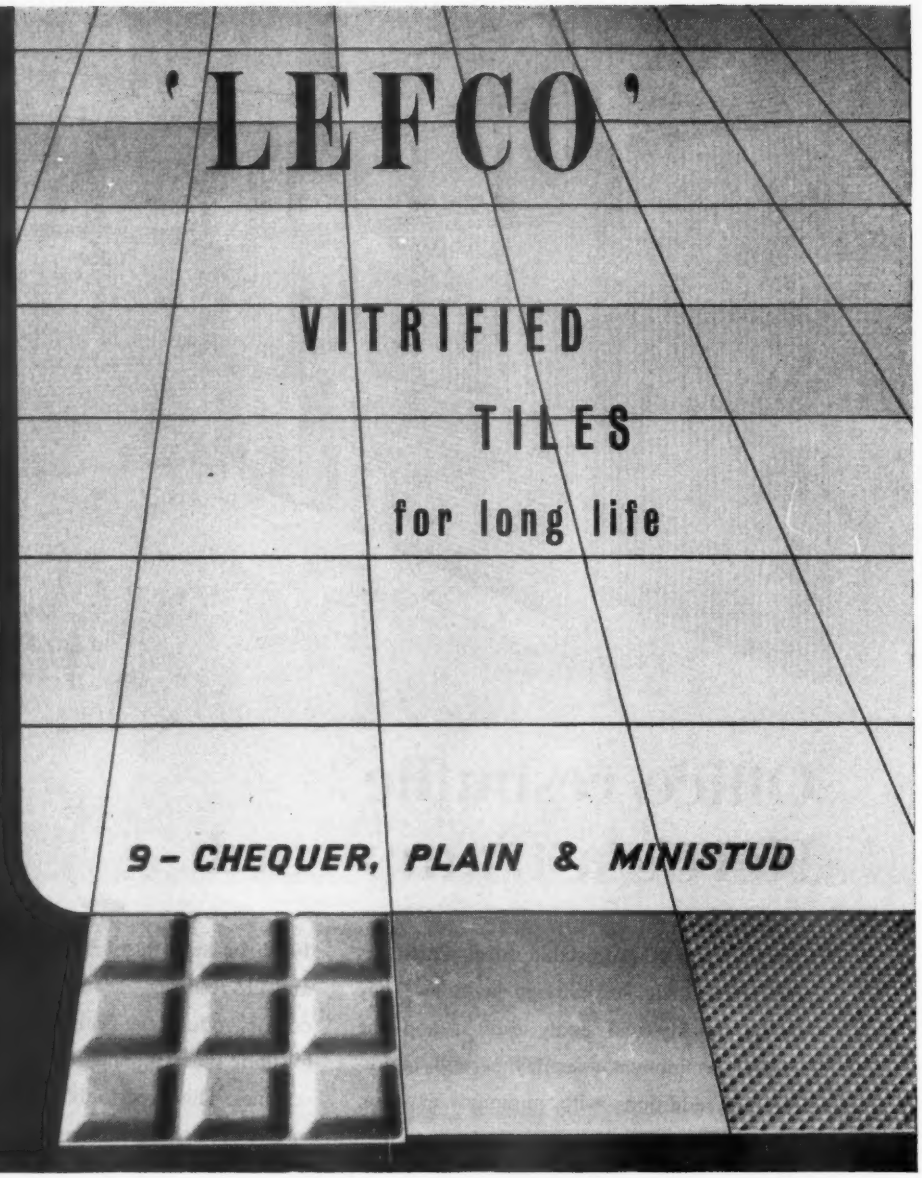

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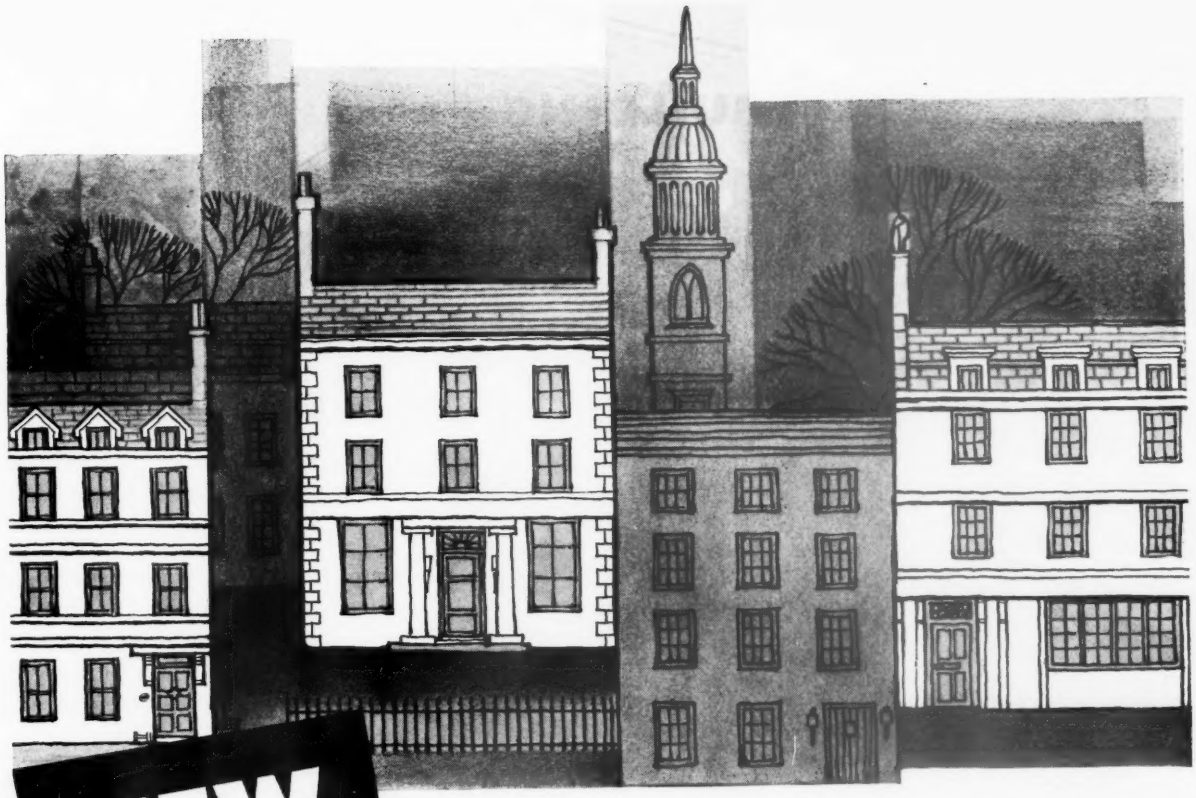

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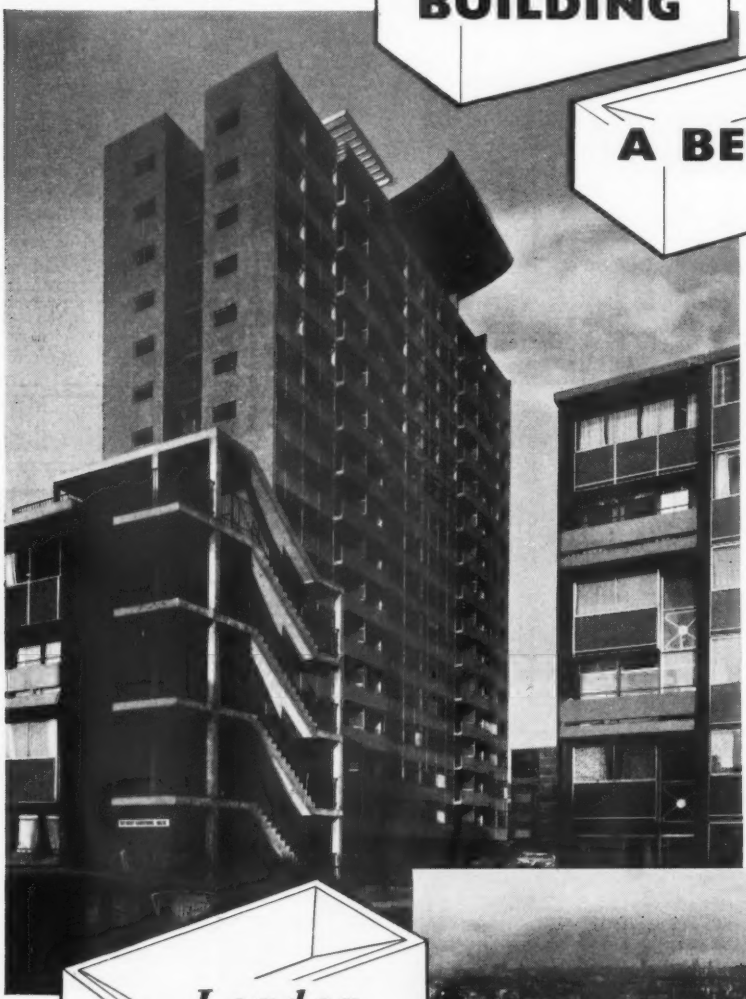

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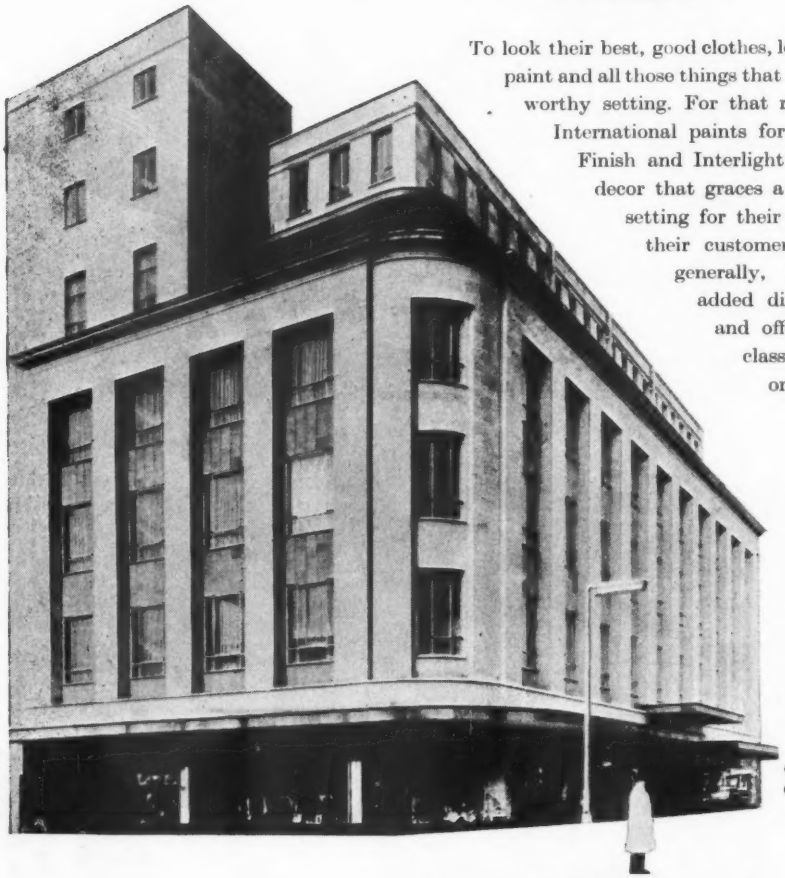

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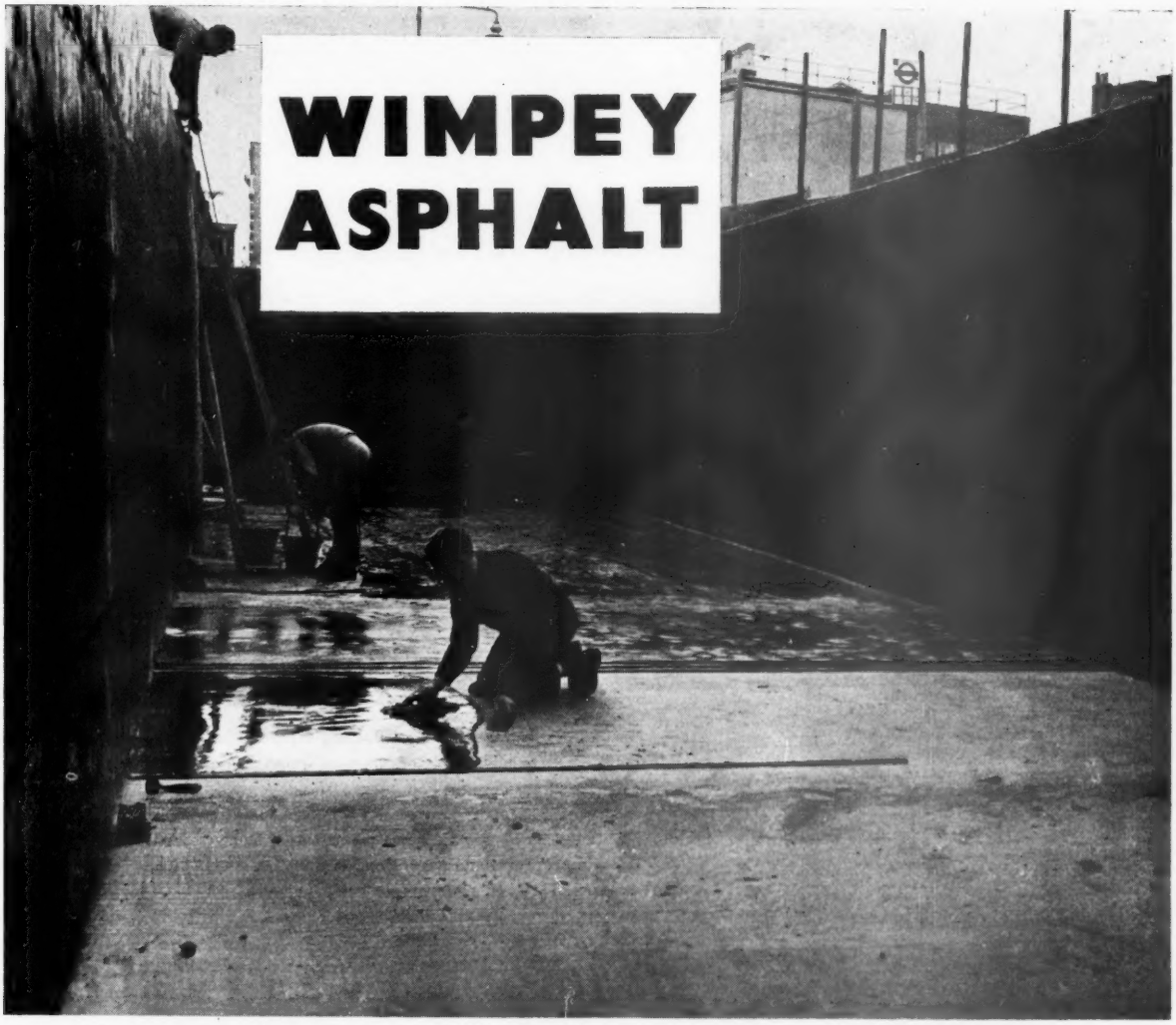

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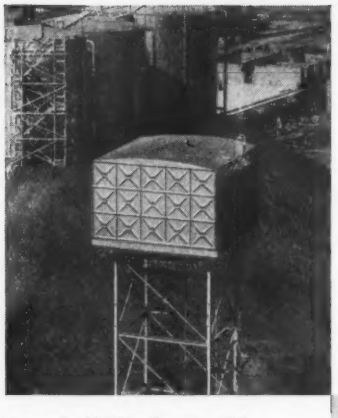

Storage for 34,000 gallons at an Oil Refinery, Aden

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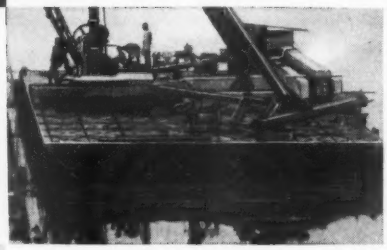
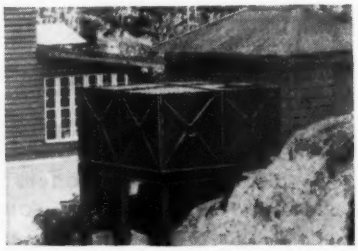


A pontoon for civil engineering work made from units built with pressed steel tank plates



Storage for 1,400 gallons at a tea garden, Ceylon

Storage for 65,100 gallons for a rural community, Belgian Congo

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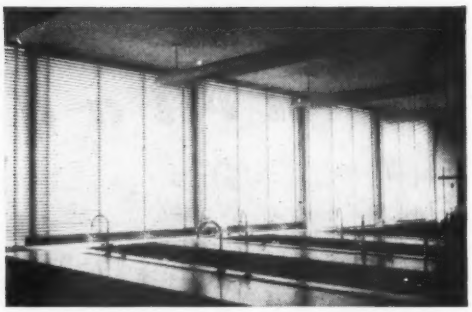
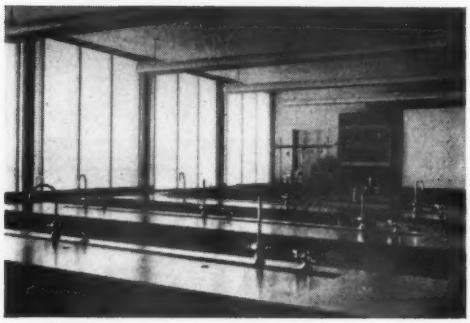
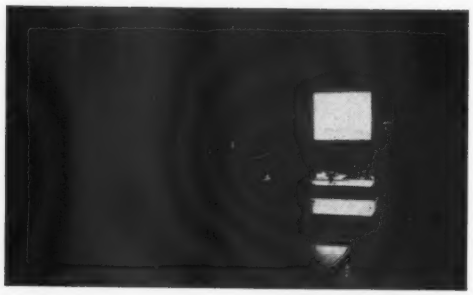
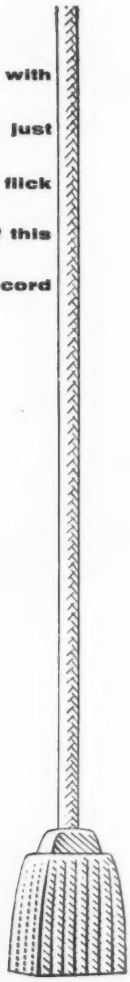






with just a flick of this cord



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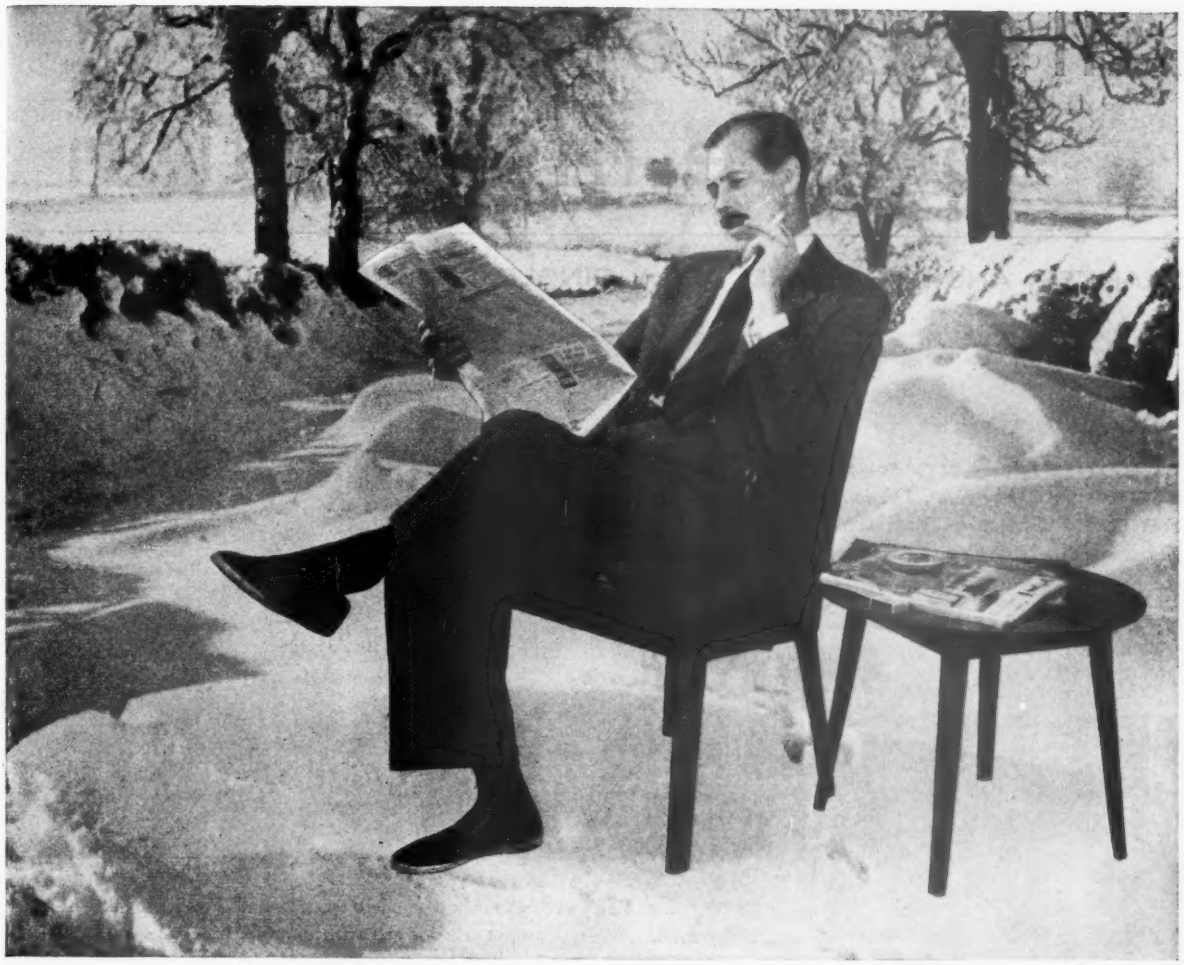
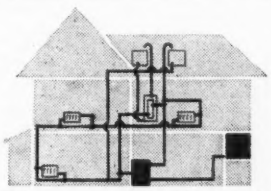


"Open plan" living demands modern heating



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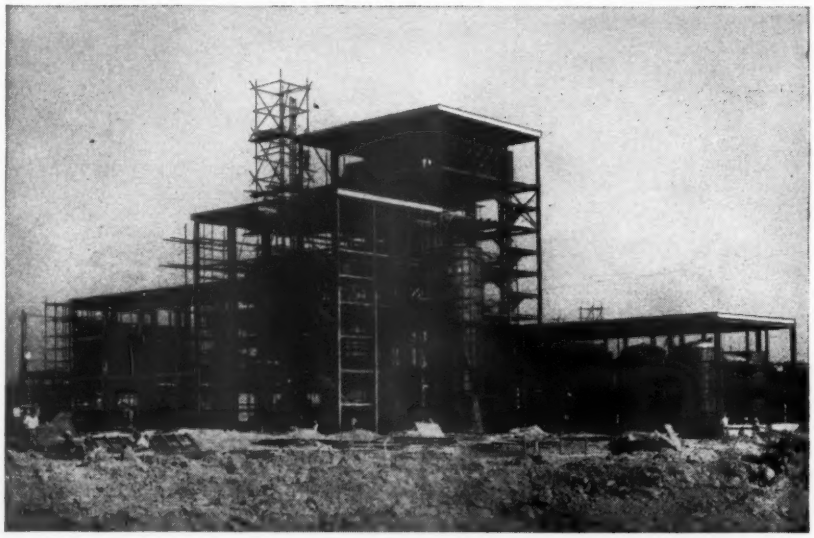

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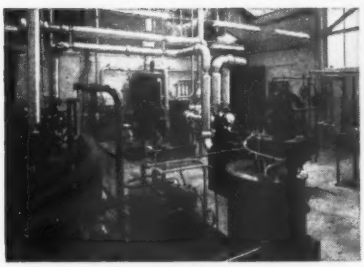

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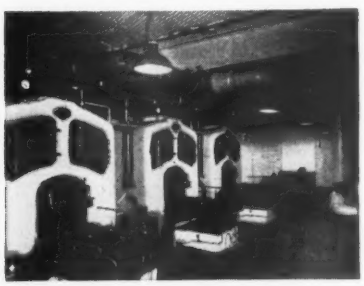

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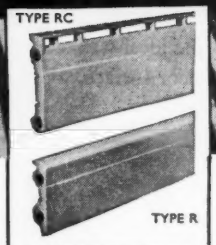

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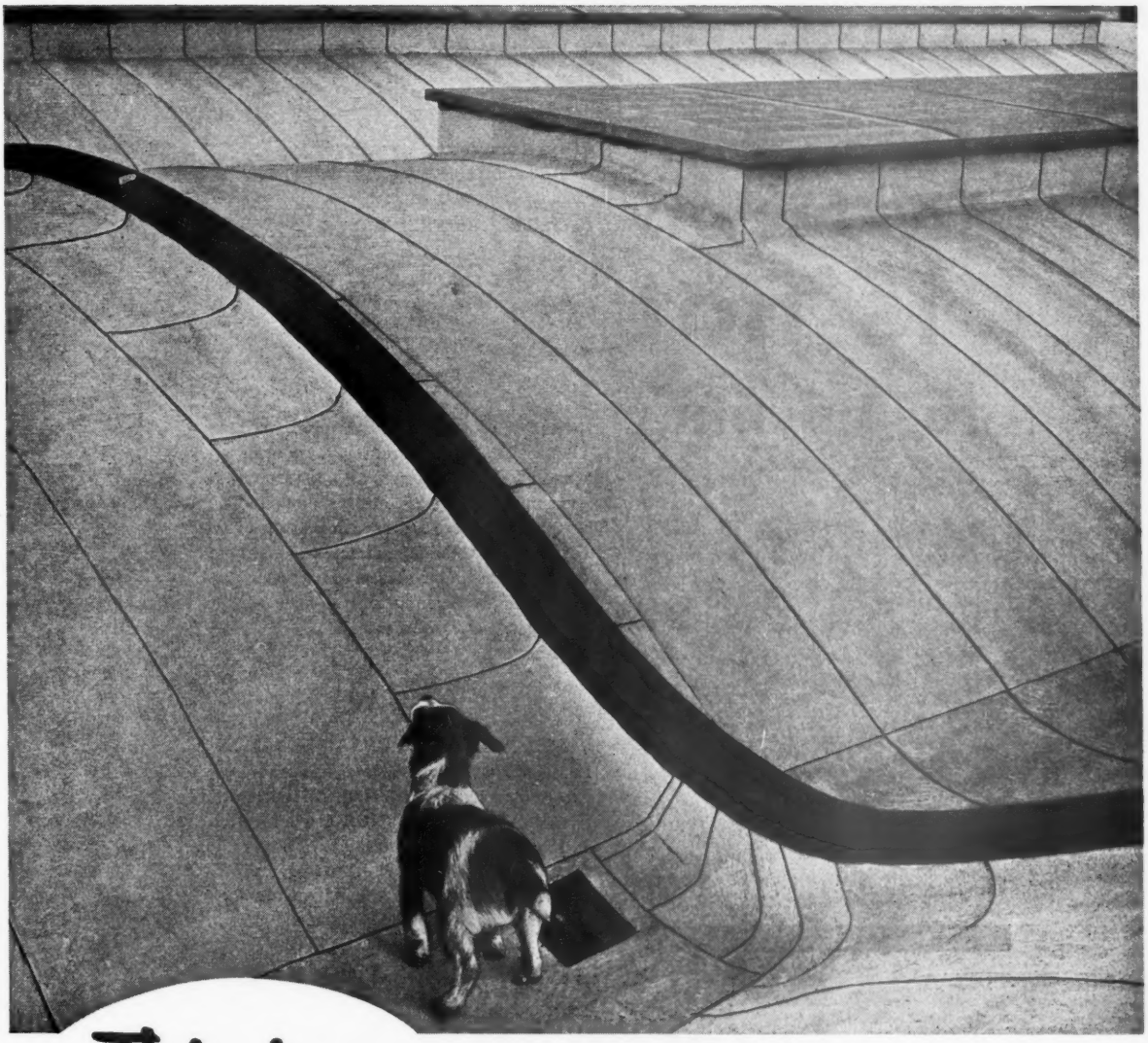

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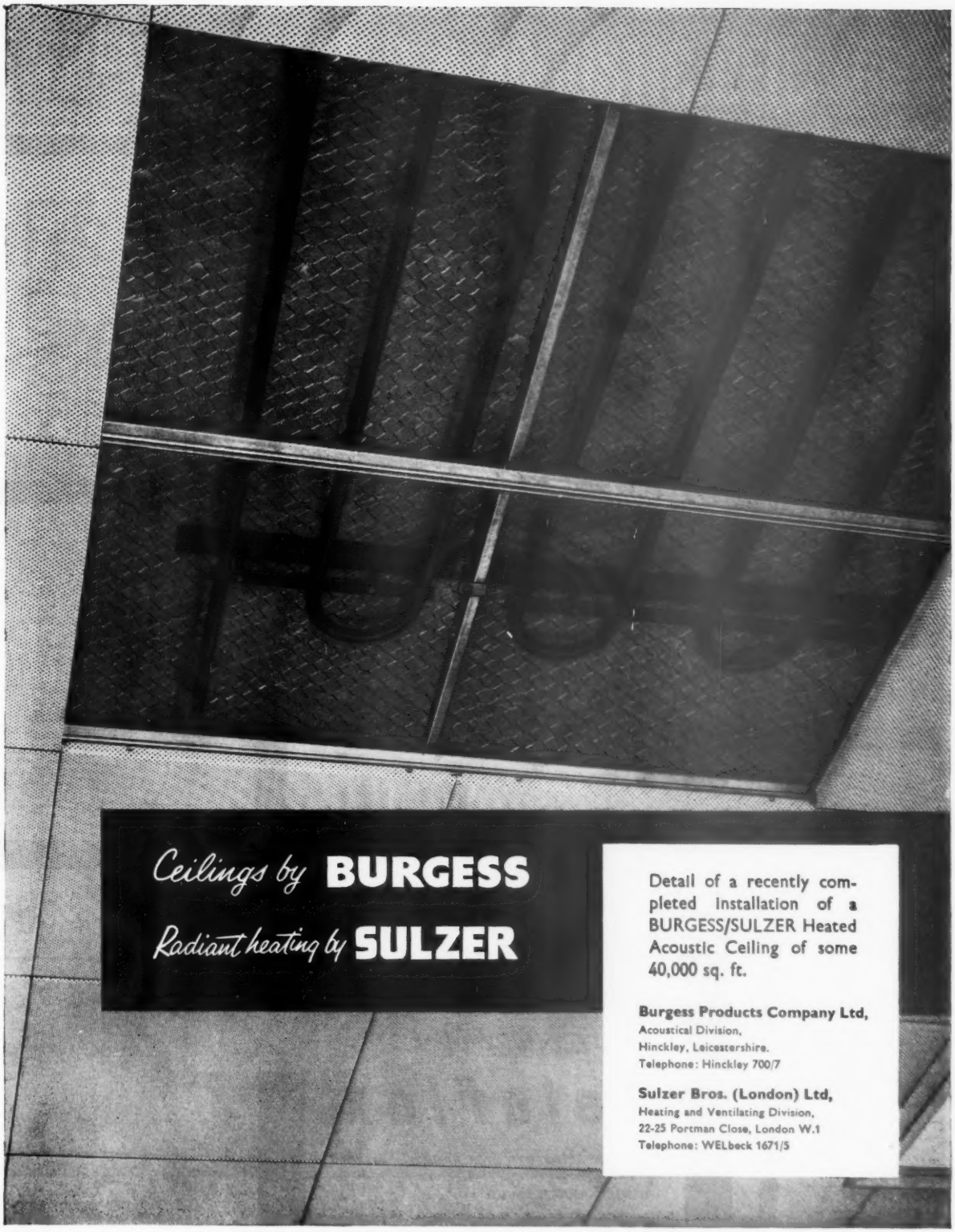
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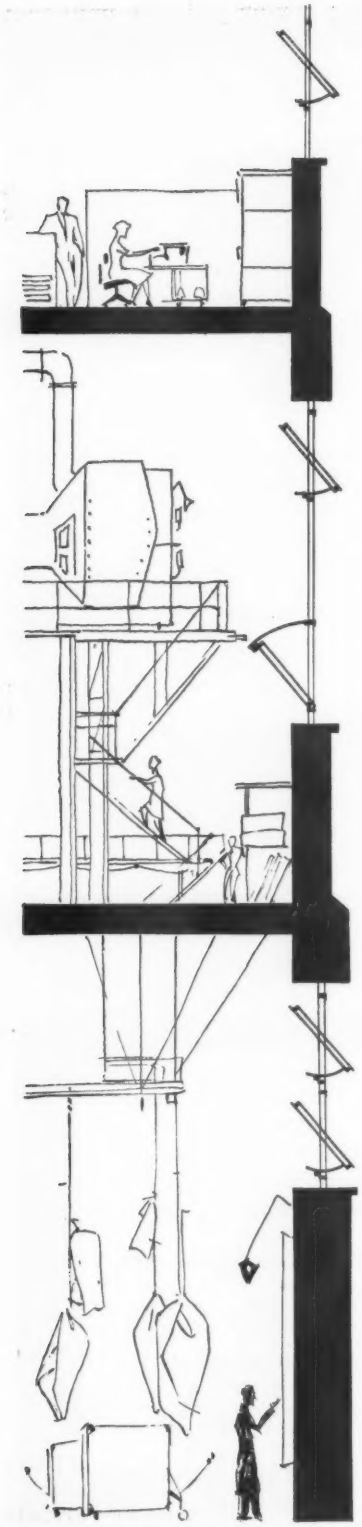

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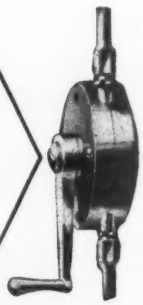

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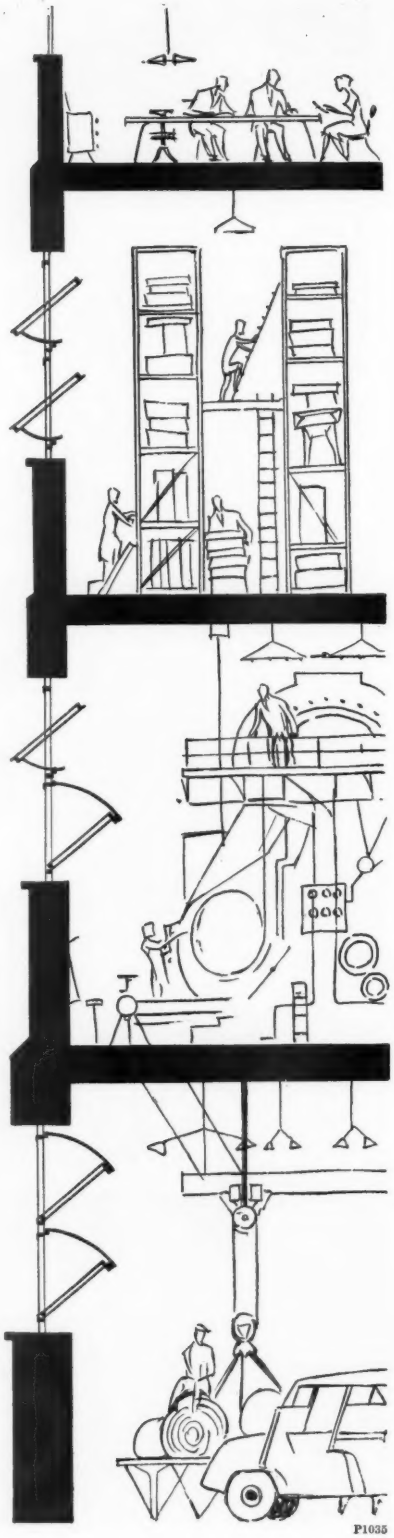

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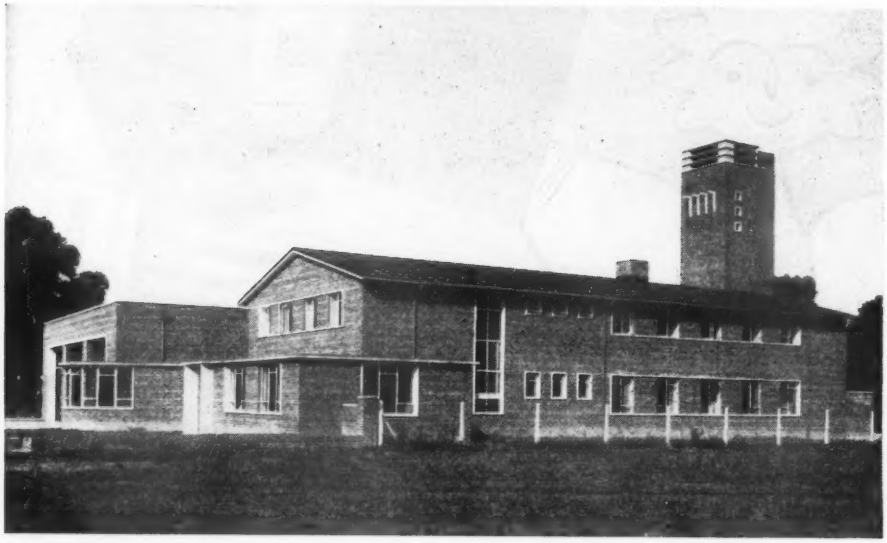

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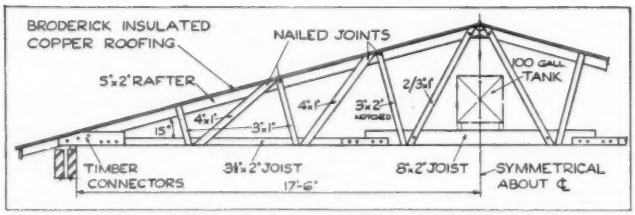

Detail of trussed rafters supporting water tanks.

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EDITORIAL

Honours

The University of Durham will hold a special Congregation at Newcastle on Saturday 17 May, following the British Architects' Conference at which the following honorary degrees will be conferred: *D.C.L.* Kenneth Mervyn Baskerville Cross, M.A., President, R.I.B.A., and Donald Evelyn Edward Gibson, C.B.E., M.A., M.T.P.I. [*F*], County Architect for Nottinghamshire and recently appointed to be the Director-General of Works in the War Office.

M.A. Donald McIntyre [*F*], President of the Northern Architectural Association in the Centenary Year of the Association, and Cyril Douglas Spragg, C.B.E., Secretary, R.I.B.A.

Tax Relief on Professional Subscriptions

The inequities that result from the present laws governing the deduction of expenses by salaried staff, assessed on Schedule E, have long been a source of grievance, and many attempts have been made by the R.I.B.A. and others to get them redressed. We were therefore encouraged when, last July, the Government acknowledged that the major professions are particularly affected, and undertook to discuss the problem with them.

Accordingly several professions were later invited to offer their views, and the R.I.B.A. joined with 14 other professional societies in submitting a joint memorandum, limiting the plea for action to tax relief on professional subscriptions and statutory retention fees. This led to a meeting in February with the Board of Inland Revenue, at which a small deputation, on which the R.I.B.A. was directly represented, had the opportunity to press home their arguments.

The Chancellor of the Exchequer has now said that in the Finance Bill he will 'meet one point that has been pressed upon me in connection with the Schedule E expenses rule. This will enable some deduction to be claimed in respect of subscriptions to professional societies with activities relating to an employee's work and for certain statutory registration fees.' It remains to be seen what is meant by 'some deduction', but the principle is established, and it is clear that a most important and welcome concession has been won.

Architecture in South Africa

The exhibition 'Architecture in South Africa' was opened by His Excellency Dr. J. E. Holloway, the High Commissioner for the Union of South Africa, on 18 April. Mr. Kenneth M. B. Cross, President, was in the Chair.

Among those present at the opening were Sir Edward Low, K.C.M.G., the Deputy Mayor and Mayoress of St. Marylebone and Professor L. W. Thornton White [*F*].

Dr. Holloway said that he wished to express the high appreciation of his government and people for the courtesy of the Royal Institute in making the exhibition possible. Many South African architects had been trained over here, and the exhibition 'was an important link between the two countries.'

The vote of thanks was proposed by Sir Selwyn Selwyn-Clarke, K.B.E., C.M.G., M.C., Chairman of the Commonwealth Council of the Royal Society of Arts, who said that the R.I.B.A. was making a valuable contribution towards cementing cordial understanding between the various units of the Commonwealth by holding exhibitions of this kind, depicting the characteristic architecture and architectural trends in the countries concerned.

The exhibition was prepared by the Faculty of Architecture of the Witwatersrand University and was designed by Mr. W. D. Howie [*A*], Senior Lecturer in the Department. It closed at the R.I.B.A. on 1 May, but may be shown in a number of centres in this country before going to America.

Federal Government of Australia Appointment

Mr. John W. Overall, F.R.A.I.A. [*A*], Director of Architecture in the Federal Department of Works, Canberra, has been appointed National Capital Development Commissioner. He will also act as Chairman of the National Capital Planning Committee. The Commonwealth parliament passed legislation last year to establish the Commission to take charge of the programme for expanding Canberra during the next seven years.

Mr. Overall, who is 44, is a Fellow of the Town Planning Institute of Australia, and was Chief Architect to the South Australian Housing Trust 1946–49.

Council Business

The Council met on 15 April, with Mr. Kenneth M. B. Cross, President, in the Chair.

Formal approval was given to the award made by the Jury of the Royal Incorporation of Architects in Scotland of the R.I.B.A. Architecture Bronze Medal in their area for the seven-year period ending 31 December 1956 in favour of the Radio Therapeutic Institute at the Western General Hospital, Edinburgh, designed by John Holt [*F*], Regional Architect, South Eastern Regional Hospital Board, Scotland.

Formal approval was also given to the award made by the Jury of the New South Wales Chapter, R.A.I.A., of the R.I.B.A. Architecture Bronze Medal in their area for the three-year period ending 31 December 1956 in favour of Anzac House, College Street, Sydney, N.S.W., designed by Bunning and Madden (Walter Ralston Bunning [*A*] and Charles Adnum Madden [*A*].

The Council approved an arrangement made by a Joint Liaison Committee on which the R.I.B.A. and the Institution of Civil Engineers are represented, for the holding of a Joint Meeting on Tuesday 20 January 1959 at the Institution of Civil Engineers. Papers will be presented by Mr. Ralph Freeman for the I.C.E. and Mr. E. D. Jefferiss Mathews [*F*] for the R.I.B.A.

On the recommendation of the Science Committee, who had studied proposed Regulations being drafted by the Ministry of Power, it was agreed to ask the Minister to consider clarification of the clause in the Thermal Insulation (Industrial Buildings) Act, 1957, dealing with restricted materials and resistance to the spread of flame. It was felt that the regulation was not clear as to whether the intention was to restrict the spread of flame on the internal surface only.

A report from the Ad Hoc Committee on the Representation of Members in Salaried Employment was considered. This report gave the results of the inquiry sent out to architects in local authorities as to the likely support for a Local Government Architects' Society.

In approving in principle the Committee's recommendation the Council agreed that the Royal Institute should offer its good offices and make available accommodation for an inaugural meeting to be called in connection with the formation of this Society.

The Council considered correspondence from the Joint Committee for the proposed Registration of Clerks of Works Act. It was recalled that in 1951 the Institute's approval of the proposed action to improve the status and standards of training of Clerks of Works had been expressed. In the renewed campaign about to be undertaken by the Joint Committee, the R.I.B.A. Council expressed the opinion that the proposed Act, if passed, would be of benefit to the profession and to the building industry generally.

Other notes from the Minutes are given on page 248.

730th Mayor of Bath

Councillor Hugh D. Roberts, A.A. Dipl. [*F*], is Mayor-elect of the City of Bath. Mr. Roberts, who is 47, has been a member of the City Council since 1949 and is largely responsible for the decision to hold a Festival in Bath this year.

Conference on Architectural Education

The Conference on Architectural Education was held at Magdalen College, Oxford, on 11, 12 and 13 April.

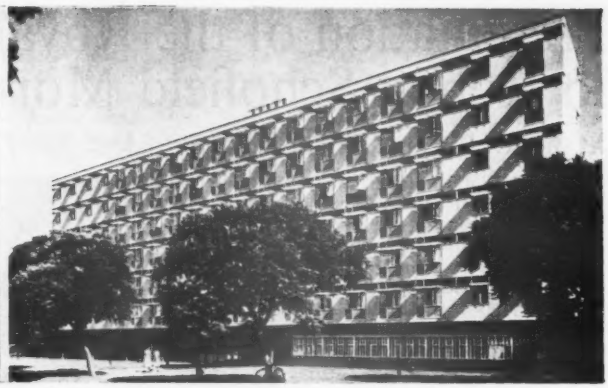
The discussions, in which all members took an active part, considerably widened the framework outlined in the Conference programme. The record of the discussions will form a valuable statement on the present position and problems of architectural education. The Conference members included those of widely differing points of view, both within and outside the profession. Nevertheless, as the discussions proceeded a substantial degree of unanimity was reached on several fundamental issues. A full report embodying recommendations will be made to the Council of the Royal Institute for publication, discussion and action.

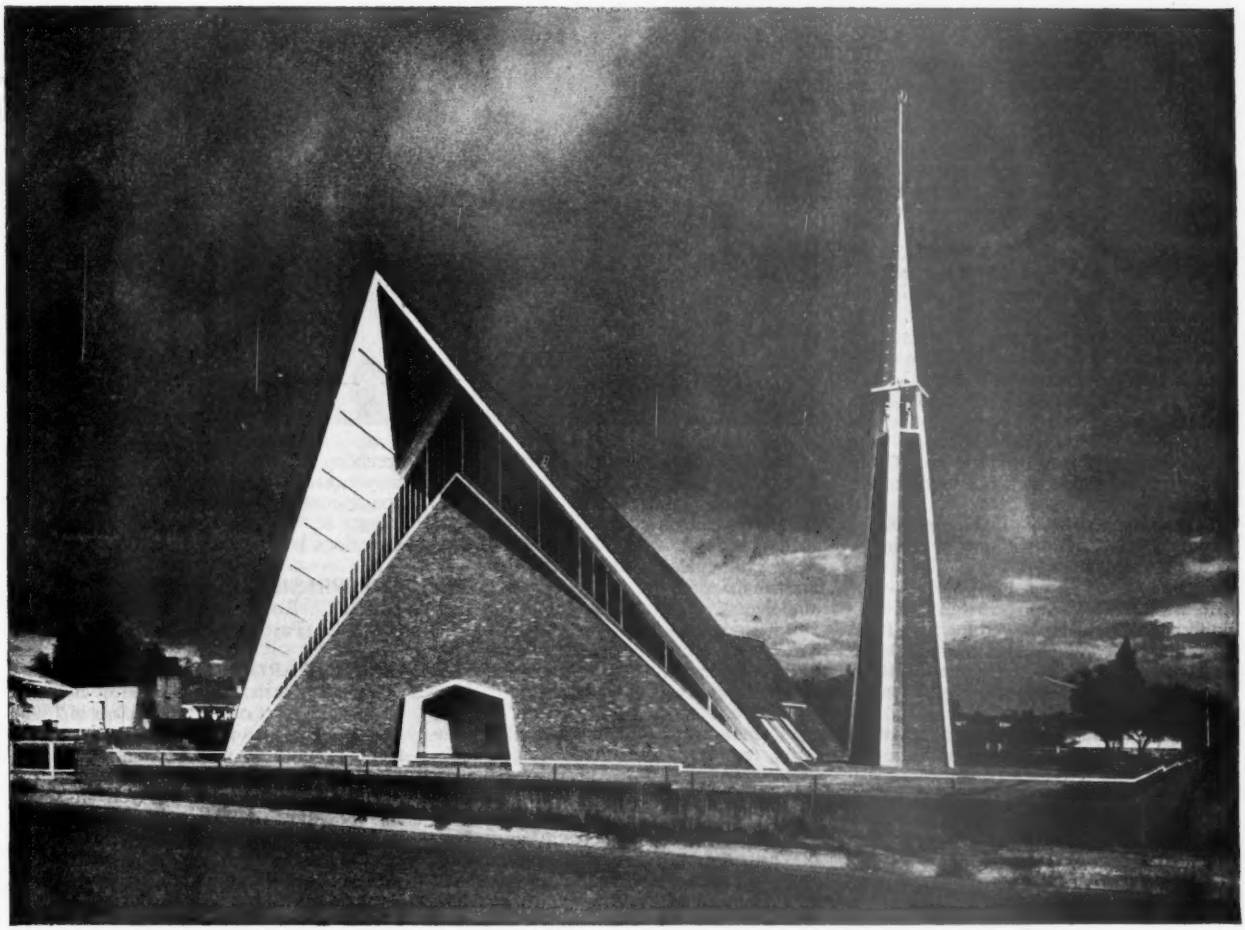
Revision of Standard Form of Contract

Arising out of the decision of the High Court in the case of Windsor R.D.C. versus Otterway and Try Limited, the Joint Contracts Tribunal felt that the construction placed by the High Court on the wording of Clauses 24 (*f*) and 26/27 did not fully accord with what the authors of the R.I.B.A. Standard Form of Contract had intended in regard to the conclusiveness of the final certificate. The Tribunal agreed in January 1956 that these clauses should be re-drafted and this was undertaken by Sir Lynn Ungoed Thomas, Q.C., and Mr. Michael Chavasse. In November 1957 it was felt necessary that these amendments should be brought into effect at the earliest possible moment rather than left to be dealt with in the general revision of the Contract. Paste-in slips, setting out the amendments, have been printed and are available on application from the Secretary, R.I.B.A., in the case of the Standard Form, or from Messrs. Charles Knight and Co., 11–12 Bury Street, London, E.C.3, in the case of the Local Authorities' Form. These slips will be inserted in the stocks of contracts already held and reprints will embody the amendment.

The Budget in Relation to Building

The Budget included several measures which may affect the level of investment in building. In general, the Chancellor stated that the moment had not yet come for any general relaxation of credit policy. However, in areas where unemployment is substantially above the average, the Capital Issues Committee and the banks are being advised to relax the credit restrictions for projects for sound development. The reduction in stamp duty on conveyances may give a slight stimulus to house purchase, but the savings involved are marginal—£10 on a £2,000 house rising to £30 on a £6,000 house. The initial allowances for expenditure on new industrial building will be increased from 10 per cent to 12½ per cent, which will give what THE FINANCIAL TIMES called a 'merely trifling' stimulation to investment. Moreover, to set against this, the revised form of Profits Tax (which will increase the tax on retained profits from 3 per cent to 10 per cent while that on distributed profits is reduced from 30 per cent to 10 per cent) may affect the amount of profits that are ploughed back for investment. In discussing the level of total home investment, which he thought likely to remain at about the same high level in 1958 as in 1957, the Chancellor expressed the hope that those planning for the future in the private sector would continue to do so with steady confidence.





R.I.B.A. Diary

WEDNESDAY 14 MAY–SATURDAY 17 MAY inclusive. British Architects' Conference at Newcastle upon Tyne.

MONDAY 19 MAY, 6 p.m. Library Group. Mr. H. V. Molesworth Roberts will introduce an evening on 'Leonard Stokes (Past-President R.I.B.A.) 1858–1925'.

TUESDAY 20 MAY, 6 p.m. General Meeting. *The Passing Show*, by the Hon. Humphrey Pakington, O.B.E., D.L. [*Retd. F*].

SATURDAY 24 MAY–MONDAY 26 MAY inclusive. R.I.B.A. offices and library closed for Whitsun holiday.

Three examples from the 'Architecture in South Africa' exhibition. *Top L:* Civic Centre for the Bantu township of Daveyton, near Benoni, Transvaal. The town hall, designed by Abramowitch, Pinshow and Schneider, will house two halls, a library and administrative offices. The civic centre will include a bank, post-office, crêche, clinic, beer-hall and old people's home. *Top R*: Women Students' Hostel, Pretoria University. Architect: Strauss-Brink. *Above:* The new church erected by the Dutch Reformed community at Parys, Orange Free State. Architect: Johan de Ridder.

Presentation of the Royal Gold Medal for 1958 to Robert Schofield Morris, F.R.A.I.C.[*F*]

At the R.I.B.A. on 15 April. The President, Mr. Kenneth M. B. Cross, in the Chair

THE PRESIDENT: We have come here tonight to honour one of Canada's leading architects and one of the most charming and unassuming of men. Mr. R. Schofield Morris is a past President of the Royal Architectural Institute of Canada, he is a Fellow of this Institute and an honorary Fellow of the American Institute of Architects. He represented the Royal Canadian Institute at the Coronation in 1953 when he also attended our Conference at Canterbury. In 1954 Mr. Morris was elected an Associate of the Royal Canadian Academy.

For some 22 years Morris has served his profession faithfully and well, having been chairman of many important committees dealing with professional relations, the structure of the profession, and education. During his presidency of the Royal Architectural Institute of Canada the Institute was reorganised, new Bye-laws were approved, and the new Act was submitted to Parliament and approved in 1954.

Whilst visiting us Bill Morris is to continue his discussions started during my visit to Canada last year concerning the proposals of the R.I.B.A. for closer collaboration between the two Institutes particularly in regard to education and architectural qualification.

It has been stated in the Canadian Press that this award is an honour to Canada and to Canadian architects, and I am delighted that this should be so. It will give me the greatest pleasure to make the presentation.

I now call upon Mr. S. D. Pierce, O.B.E., Deputy High Commissioner for Canada, to speak.

MR. S. D. PIERCE: The High Commissioner, Mr. Drew, has asked me to tell you how much he regrets that he could not be here today. He is in Geneva as Head of the Canadian Delegation for a Conference on the Law of the Sea.

As the President has said, Canada does regard this occasion as a great honour, and Mr. Drew has asked me to say how grateful and how proud Canadians are that Her Majesty the Queen has been graciously pleased to award the R.I.B.A. Royal Gold Medal this year to a Canadian.

Today's ceremony is not only gratifying for a Canadian, but also for the whole Commonwealth. This attitude by a British institution of extending its interests to embrace the whole Commonwealth—an attitude so tangibly expressed in today's award to Mr. Morris—is one of the finest examples of one of the happiest aspects of the Commonwealth relationship. What an encouragement to Commonwealth architects today's ceremony must be! I always like to think there is a good deal of fine modern architecture in the countries of the Commonwealth, but it needs a recognition of this sort to make us fully aware of it. Commonwealth architects, by a ceremony such as today's, are made aware that their work is of interest not only to their own immediate community, but to a far greater audience.

But I do not suppose we can expect this sort of thing to happen every year! What a difficult job it must be to make an award of this kind, even if you limit yourself to Britain, and more so when you embrace the Commonwealth. How difficult, particularly, for an association of architects, because as one reads about their activities, and about the discussions over the forecourt of St. Paul's, over the lamp-posts in front of Mr. Matthews' house, and about the attempts of various Commonwealth governments to improve the appearance of Trafalgar Square, one is led to conclude that architects are not exactly noted for their readiness to agree amongst themselves on matters of controversy.

Still, in the ten years of this award, you have managed to make the award year by year; you have once before honoured a Canadian, and once honoured an Australian. So it is our happy pleasure today to be able to thank the men who recommended the award, to congratulate the man who is receiving it, and to hope that the future may again offer us this same happy conjunction of Commonwealth achievement, so signally recognised by this illustrious Institute.

THE PRESIDENT: I now call upon Sir Howard Robertson, M.C., A.R.A., S.A.D.G. (Past President), to speak.

SIR HOWARD ROBERTSON: Robert Schofield Morris, who is looking at me in a menacing sort of way, was born in 1898; therefore, as compared with some architects, I think we may consider him as a most promising youngster. The R.I.B.A. JOURNAL for February tells you all about his education and training. He seems to have taken all the right steps all through, school, office experience, and then those invaluable six months in Italy, France and England. Then, having taken the presidency of the Royal Architectural Institute of Canada more or less in his stride, now six years ago, he lands here again on these rather chilly shores, to receive the Royal Gold Medal.

He is a very easy architect to praise, for his work speaks for itself. It is both frank and comely, appropriate in both place and time. The clients of the firm of Marani and Morris seem unusually satisfied with their

architects. I know this, because I have visited some of the buildings, and inspected some of the clients. They have not a revolver in the drawer when Bill Morris comes along: in fact, they are unusually welcoming. That is something which just wants mentioning in passing.

Marani and Morris have unquestionably made successive and positive contributions to the architecture of Canada. Therefore this is indeed a very happy occasion when such a constructive life-time achievement receives a Royal appreciation in this award to Robert Schofield Morris.

THE PRESIDENT: I now call upon Mr. Basil Spence, O.B.E., A.R.A., A.R.S.A., Hon. Secretary, to speak.

MR. BASIL SPENCE: This is a personal tribute, and is couched in personal terms. In the fall of 1953 during the turmoil, stress and anguish of a fund-raising tour of Canada, I met Bill Morris. I went with the Provost of Coventry and the Bishop's Chaplain, two clergymen, and the purpose was to raise funds for Coventry Cathedral. My own contribution to this effort was to speak 93 times to many different groups of Canadians.

One of the features of the Canadian social life is the enormous number of clubs that exist. I spoke to the Rotarians, the Tamahaacs, the Lions, the Kiwanis, the Optimists, that amazing body of women—the Imperial Order of Daughters of the Empire—and many others whose names I now forget.

Above all, I shall remember this trip for my wonderful experience of meeting so many groups of architects in every single town that we visited—and we visited all the important ones, right across Canada from east to west. Bill Morris was then President of the Canadian Institute of Architects. He was in a key position; it was he who organised this part of our appeal. It was from him that the friendliness, and sympathy and understanding came, and it was because of this that I was well received.

When one goes and appeals for money, when one is on the scrounge, it is very different from going and being a guest and just giving lectures. In other words, I went to Canada to take something away, and not to give them something, and it is under these circumstances that one finds who is a friend, and who is not.

Ladies and gentlemen, there is no doubt that we have a great friend and ally in Canada, and the reception that was given to me will no doubt be accorded to all the British architects who wish to go out there and make their homes. It is through people like Bill Morris that this bond that exists now between Canadian architects and British architects has been forged on the firm ground of friendship.

The Royal Gold Medal has a broad base, it recognises many qualities, it is given for service to architecture, and in our Gold Medallist tonight we have a man, far-seeing, rich in humanity, warm in friendship, someone who is a real friend to British architects. I have many personal memories—the wonderful scenery and country of Canada, so rich in beauty, the warmth and beauty of Vancouver, the bustle and busy-ness of Toronto, the old-world atmosphere of Quebec and Montreal, the *crabe bisque* that Mrs. Morris gave me in their charming house in Toronto, the *escargots* that I had in the old town of Montreal, the Chinese dinner given by Professor John Russell of Manitoba University, in Winnipeg, the great prairies, the Rockies.

Mr. President, I hope you will forgive me if I pay my personal thanks, now, to Bill Morris, for the part he played in making what was a difficult operation into an extremely pleasant and rewarding one. He may be interested to know that the efforts of the Canadians to help build Coventry Cathedral will be represented in the building. I hope that in the summer of 1962 when the cathedral will be consecrated, Bill and Elsie Morris will come over for that occasion. It will be a great pleasure for me to show him the copper maple leaf which will be inlaid into the nave floor as a modest symbol of Canada's contribution to the cathedral.

THE PRESIDENT: I now call upon Sir Hugh Casson, M.A., R.D.I. [*F*], to speak.

SIR HUGH CASSON: My tribute, like Mr. Basil Spence's, is a personal one. May I say first of all how honoured and pleased I am to join my colleagues in their words of welcome and congratulation to Mr. Robert Schofield Morris. Prize-days for the distinguished and deserving are always pleasant and rare occasions: often they come too late in the life of the recipient to be fully enjoyed, and sometimes it seems it is a race between the prize-giver and the undertaker. This, happily, is not the situation tonight. Bill Morris is a mere chicken of 60, and has many years ahead of him of active practice (and I hope lots of curling, too) in which to enjoy the honour that he receives this evening.

I have attended most of these ceremonies in recent years, and I have always thought how odd it must be, as an on-the-brink gold medallist, to sit in cold blood and listen to what must at times sound suspiciously like an obituary. Like all architects, of course, I adore praise and am irked by criticism, but there are times, I feel, when even those medallists most susceptible to praise—and I could name one or two—must sometimes secretly wonder whether those present are in fact talking about somebody else. After all, you have only to read such notices daily in THE TIMES—column after column of sterling character, unswerving loyalty, sparkling wit, incisive intellect, ceaseless industry, outstanding courage, etc.—to wonder where among these paragons are all the people that one knows. The trouble, I suppose, lies largely in the failure of words. Words, Rose Macaulay has said, like water, run downhill and end in a shallow meaningless puddle. To describe a man as a good architect has become the most perfunctory of tributes. To say he is imaginative means he has to be watched on costs. To say he is reliable means he is an insensitive clod. To say he is unusually successful will land you in the libel courts; but to say he is eminent—that, ladies and gentlemen, is to screw him down for ever, and stamp upon his grave. These difficult tasks, then, I leave for other and more practised voices than mine. I wish to say only a very few words, if I may, about what is sometimes described on the back of motor cars as 'Another Morris'.

Six years or so ago I had the privilege of attending by invitation the R.A.I.C. Conference in Toronto. Bill Morris was at that time the President, which was nice if arduous for him, but he was also, which was nice and far from arduous for me, my host. This is the first, and perhaps on so formal an occasion not the most suitable, opportunity I have had since of expressing my thanks to him, and through him to all his professional colleagues, for their warmth and hospitality. I know that gold medals are not given—though I am not sure they might not sometimes be given—for patience and courtesy, for integrity and modesty; but I cannot let the evening pass without reference to these personal qualities. Now I see I have already picked up the pen of the obituarist.

Of his buildings and his devoted and time-consuming work for the R.A.I.C., others, I know, will speak with more authority and knowledge than I can. The list of the former is enough to make any architect's mouth water, the record of the latter enough to make any architect's heart sink in sympathy. But I feel only Bill Morris could have collected and satisfied a client called 'The Perfect Circle Co., Ltd.'—what could they make, and was the building round or square? Only Bill Morris, I feel equally sure, could have coped so patiently and clear-headedly with the difficult problems of a professional organisation almost knocked off its feet by a building boom, and trying to absorb without friction new members emigrating from Europe.

Well, my time is up: my tribute has been brief, but warmly felt. We are all delighted to see Bill Morris here. We congratulate him on his honour, and on his return to Canada in due course we hope he will remember this evening with as much pleasure as we shall.

THE PRESIDENT: I call upon Mr. G. A. Jellicoe, M.T.P.I., P.P.I.L.A. [*F*], to speak.

MR. G. A. JELLICOE: I also would like to add what is really a personal tribute to Mr. Morris, and in order to do this I am going to waft you across to Canada, because it is by seeing his achievements in Canada that one can most appreciate him. Four aeroplanes, at least, will be required.

You will leave England, with so many architects to the square mile, cross 2,000 miles of sea, cross vast areas of land where man is in his elementary state, not pushing people left, right and centre. There is still a great deal of room in Canada. You will see Toronto, a great modern city, below

you, one of the richest in the world, young, and because it is young, still finding its place in the arts, not yet a beautiful city, though it will be, no doubt, in course of time.

Set among its towers is the modest office of Marani and Morris. It is a low building, though Mr. Morris tells me he has added two more storeys. I hope he will not add too many storeys more, because the smallness of the office gave it immense charm. I remember walking through the office, and an assistant saying to me, 'Mr. Jellicoe, is the door of your office in Gower Street still maroon colour?' I was so moved that I fell in love with Marani and Morris before I met them. It is a most enchanting office; as you look from the window you see great buildings rising on either side. Mr. Morris is rather like the Greek of old who threw teeth on the ground and soldiers sprang up. From his office windows, you see these works of his rising.

There is great opportunity in Canada to make money quickly and to do bad work shoddily. The great thing Morris stands for is that his work is all done so well. You can see from the photographs, and better still if you examine the buildings in Toronto, he has a strong notion of good work and good art.

If I were asked what was the greatest quality of Morris, I would say his good judgment and good character. You require both of those to resist this urge to make money quickly in a new country. I think with that I must bring you back to England. I feel this is a great award to someone in a country of this vast size, and I would like to join you all in paying tribute to Mr. Morris today.

THE PRESIDENT: I now call upon two Royal Gold Medallists, Sir Howard Robertson, M.C., A.R.A., S.A.D.G., and Sir Percy Thomas, O.B.E., Past Presidents, to escort Mr. R. Schofield Morris to the platform.

(The President invested Mr. R. Schofield Morris with the Royal Gold Medal.)

MR. R. SCHOFIELD MORRIS: This is something to which, of course, I have been looking forward for some time, for two reasons: first, because it gives me an opportunity of meeting old acquaintances and speaking to you on the occasion itself; secondly, because I felt that now I might return from orbit and get down again to solid ground.

The receipt of the Royal Gold Medal makes me feel very old, and very young—very young, because I am joining a party of such distinguished people; also very small, because they are a group of architectural giants—very old, because such an occasion makes one look back on one's life, and wonder how in the world this ever happened to one. Being old, I will take the privilege of age to reminisce a little bit.

The first architect I ever remember meeting was Frank Darling, who was the first Canadian holder of the R.I.B.A. Royal Gold Medal. My father sent me to see him, to ask him whether I should become an architect. I do not remember what he said, but he must have been encouraging because within a few days I found myself copying a sheet which meant nothing to me at all, but which I remember now as being 'a Doric guard-house'.

Mr. Darling was a very interesting man—a very worthy recipient of the Royal Gold Medal, a great gentleman, and a great architect. He was of the school of McKim, Meade and White and Carrere and Hastings. Some years later I found myself a very junior member of the staff of Carrere and Hastings, and I got to know Mr. Hastings quite well because he had a habit of coming into the drafting room after five o'clock and talking to us young people there. He was a very charming man, with a face easily recollected; I can remember very well what he looked like, and I can almost picture the look of astonishment he might have had on his face if he saw me standing here now, and heard the words spoken here tonight. Mr. Hastings was the Gold Medallist in 1922.

In 1954 I attended a meeting of your Council, sir, as Canadian representative; there was a luncheon before that meeting, at which Sir Arthur Stephenson spoke, as Gold Medallist of that year. He spoke from his heart on the subject of the Commonwealth. He also spoke as an Australian. I am here as a Canadian, and indeed that is the reason that I am here, and I would like to stand beside Sir Arthur to say that the strengthening of Commonwealth relations, the tightening of the bond between Commonwealth architects, is something which we feel very strongly about, and which we hope will increase.

We in Canada, I think, have been inclined to be a little bit self-sufficient, perhaps on account of our situation; we have not sought the help and inspiration of other countries to the extent to which we should. I think that is a great handicap, and something which we should correct. But something has happened in the last few years: it started with the visit of Mr. Graham Henderson, when he was President of the Royal Institute, when he came to visit us with Mrs. Henderson and your Secretary. They travelled across the country, and made, I think, a very great contribution to the warm feeling that exists between the architects of my country and those of Great Britain. They were followed by Sir Hugh Casson, who came out at very short notice, and went back too soon. You will not be surprised, however, to hear me say that Sir Hugh Casson made more friends in the shortest time than anyone I have ever known.

Then Mr. Basil Spence came out, and he again did a great job in promoting the very good feeling between architects in Canada and those in this country; and of course, to cap it all, your beloved President, Mr. Kenneth Cross, visited us last year, and he spoke to us about this objective of closer collaboration which now is very important in everybody's mind.

With regard to the award of the Gold Medal to a Canadian, to which Mr. Cross has referred, I would like to say again it was a great surprise, at least to me, to see what importance the people of Canada placed upon it. They did not know a great deal about it, but they seemed to understand right away that a great honour has been done to Canada, and whenever Canadians mentioned it to me they invariably said how pleased they were that Canada has received this honour. That was something which had to do with the medal itself, and nothing whatever to do with the recipient.

You have been told that I have taken a great interest in professional organisations and affairs, and I have. I propose to say a word about that, and about the profession in Canada. Not long ago I ran across a little account of the speech which Richard Upjohn made on the occasion of the first banquet of the American Institute of Architects which was held on 22 February 1858, one hundred years and two months ago. He apparently felt it necessary to explain then why there was such a thing as the A.I.A. and what it was supposed to do. Part of what he said was 'Organisation is a wholesome check on the erratic wanderings of some men of genius, and a spur to the flagging energies of others'. I do not know if there are any erratic geniuses in Canada whose erratic wanderings must be checked. I do know that we need to spur the flagging energies of a lot of people, including myself, when it comes to professional matters.

The profession in Canada is rather differently organised than it is in other places, because the R.A.I.C. does not, in a sense, govern the profession. The administration of the profession is by the component societies who are, broadly speaking, provincial bodies. The reason is that by Canadian law the professions must be governed by provincial law, so that the R.A.I.C. is in the position of advising, rather than dictating, what the profession should do. Some of the provincial associations are well organised and extremely self-sufficient, others are, quite frankly, in need of help. In the last few years we have started to put our Royal Institute on a more truly national basis, and we are beginning to give the help that is needed to the smaller societies, who are beginning to expect that help.

To reminisce again, it is just 30 years this year that I became Marani's partner. The last 30 years of architecture have been very exciting and rewarding; I hope he has enjoyed his association with me as much as I have mine with him. I have also to thank my other senior partners, Mr. Allan and Mr. Dick, and others who really do the work.

There are, I suppose, only a few really great events in everybody's life. For my wife and myself, this is one of them. I cannot express my feelings on receiving the approbation of my friends and colleagues, and particularly from the most distinguished group of architects in the world, the Royal Institute of British Architects. I wish to thank all those who spoke so kindly if inaccurately of me this evening. That you saw fit to suggest to Her Majesty the Queen that the Royal Gold Medal for Architecture should be given to me is a great honour, which I most fully appreciate.

Domestic Building and Speculative Development

by Eric Lyons, M.S.I.A. [*F*]

Given at the R.I.B.A. on 25 March, Mr. J. H. Forshaw, C.B., M.C., Vice-President, in the Chair

The Chairman: I am sure it is a tremendous encouragement to Mr. Eric Lyons to see such a large gathering. The subject of his paper 'Domestic Building and Speculative Development' is a most important subject. It is, of course, one of the problems and perhaps the greatest problem in building and planning that the country is faced with. I am sure we shall appreciate hearing from him something about the imagination behind his ideas.

Mr. Eric Lyons: I am not sure that I can talk about imaginative work. I am talking this evening of building in a peculiar jumble, because we are all embarrassed by the vast, squalid achievements of the speculative builder. Although architects are united at least in their resentment of the despoliation of town and country, it seems very few architects are prepared to interest themselves seriously in the developer's problems—perhaps I am really here as an awful example. Anyhow, in order to justify my participation in this nefarious trade I am going to speak in favour of this method of providing domestic buildings; and I am going to present a completely biased view of the situation.

I think we are approaching the time when it may no longer be economically possible for the individual to have built his own 'special' house, and, from a town planning point of view, I doubt whether there is any solution to the collection of individually designed small houses—no matter how well designed. I want to emphasise the word 'small'. It is due to the advent of the small house that the new town planning problem has arisen, in my view. The vast majority of housing is promoted by local authorities and New Town corporations or by speculative development. The post-war return of the spec. terror should not obscure the fact that generally speaking the standard of housing design is low throughout the country. I say this despite my admiration for the important work being done by the L.C.C.

Although my experience is limited to working for only one very special group of developers, I am comforted by a firm theory about the whole problem; it is that the spec. builder could provide the most effective opportunities for architects to regain their prestige in domestic design. I will, of course, not attempt to advertise from this platform the special group of developers who are my clients. In fact, I will not even mention the names of the two 'posh' Sunday papers in which they advertise, so will you take it as read that I know they are special? There are a few spec. builders who have made serious attempts to improve their standards, and recently there have been several interesting experiments by some small firms. On the whole, the situation has not changed much over the last 30 years—town-planning or no town-planning. My theory is that it will not change unless architects create the conditions whereby they can be involved.

Most of us are baffled by the problem, and there appear to be three broad solutions. The first is to prohibit spec. building and restrict housing to local authorities; this might be regarded as the politicians' solution. The second solution is town planning aesthetic control, which of course is the town planners' answer. The third solution, which is not used so often as one might think, is the extensive and *full use* of architects. I think this ought to be the architects' answer.

To analyse these three broad solutions one might sympathise with the idea of entirely banning spec. building if one had not seen that most local authorities have played safe, and that housing manuals, although responsible for improving many standards, have tended to stultify any creative approach to basic design. Indeed the very existence of manuals as guides to good taste for local authorities—and I am sorry to say this—has made architects almost unnecessary, and we have only to look at the suburban wastes which constitute most of our New Towns and at the blight of tidy emasculated gable-ended houses around most towns and villages, to see the scale of the opportunities that have been lost. I know that many architects have struggled in this straitjacket of standard plans, room sizes, directives, committees, and so on, and have made valuable contributions but this is often achieved in spite of the 'regulations', not because of them. It almost appears that few architects can sustain that delicate balance that is necessary for effectiveness in local authority employment. As a means of architectural development it is at least *unreliable*, and although there has been tremendous progress in some areas, most of our official housing remains obstinately outside the stream of modern architectural thought. I am working for local authorities and I am certainly not opposed to local authority housing, but I think that the existence of architects working in the freer fields of private enterprise should encourage a healthy interchange of ideas and stimulate the architectural and social experiments which are so necessary.

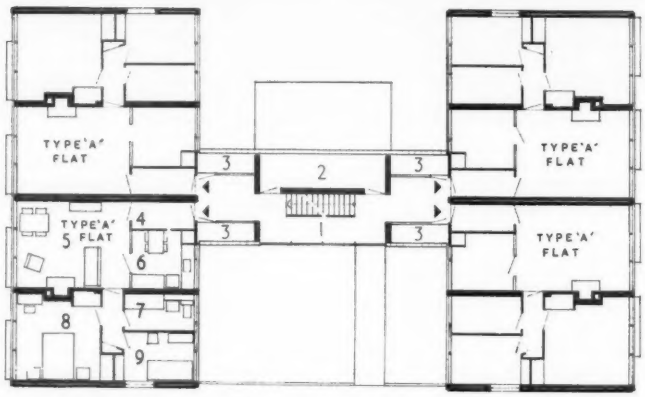
The second solution of aesthetic control has been in operation for a long time and it clearly doesn't work. I have heard it suggested that the control should be tightened, but I think that the tighter the control the more likely it is to choke architecture. The 'guidance' of even well-intentioned town planning officers can do little, particularly as their judgment is often trimmed by the prejudices of lay committees. Aesthetic control has made but the slightest difference to the worst work, and I regard it as a serious impediment to architectural progress, and an encouragement of the new decadent cult of 'Preservationism'. It is a new respectable form of culture. I have had town-planning difficulties ranging from straight obstruction to any kind of modern design, on the one hand, to the fumbling of the town planning officer who is determined to make his mark. The effects are always unpredictable, often farcical, rarely beneficial, wasteful of time, and wearing to the nerves. I have found in Cambridge one of the notable exceptions to this inglorious rule. Badly designed spec. building still flourishes in spite of the Act; I begin to believe because of the Act, owing to the discouragement of any departure from the so-called 'traditional', also known as 'amenity', detrimental to which we must not be, and up with which they are not prepared to put. No matter how low the town planners and their committees may regard the architect as a form of life, even they might agree that the average architect can design a better house than the average spec. builder. That is not a very rash assumption. If the application of the Town Planning Act could eliminate aesthetic censorship of architects' work, we would quickly see improvements in housing design. The architect would have a recognised advantage over the spec. builder's son-in-law who is good at drawing, and I think a fair advantage, and the town planning authorities would be in a stronger position to reject the unworthy lay application, knowing that the builder had a remedy in his own hands—by going to an architect. This does not guarantee that all buildings would be beautiful—but they must be better, and it would create opportunities particularly for young architects. One important advantage to the profession would be an enhanced status in society, with a recognised *responsibility*. We would be out of the grace and favour department, and might be allowed to meet town-planners on equal terms, and *collaborate* and *participate* in the formation of our ever-changing physical environment. I am reckless enough to suggest that this is the architect's proper job.

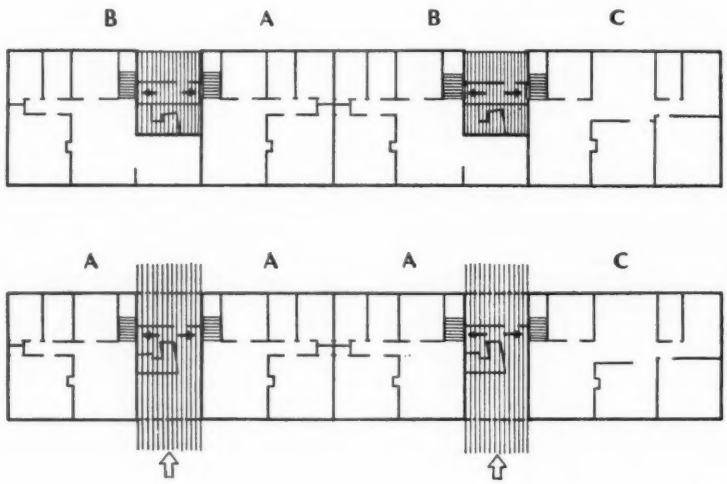
The third solution then to the spec. terror, and the most obvious one, is the involvement of architects. Can we be surprised that architects are not used, and can we blame the spec. builder entirely? Even the R.I.B.A. appears only recently to have recognised the need for a special study of the problem. Too many architects have been prepared to merely tidy-up the front elevations and get the drawings through the local council. I am sorry to see that our Institute has sanctified this

idea by recognising 'partial service' and setting out a special scale of fees—*reduced* fees of course. Surely this is a great disservice to architecture? In no other field of building is it held that architects should be employed to prepare only basic drawings, charging a nominal fee, on the theory that any further service cannot be worth having. We all know that no building can achieve any predictable form without the follow-up of complete detailing and supervision, and with full control of the building programme. This is the only way we can gain experience; to send out a design with an account for fees must be a loss all round. I believe in high fees and high salaries for architects—not lower ones—and I think this demand can be justified even in spec. building. I have responsibility for design, layout, contract supervision and landscape design, and I expect to be consulted on suitability of sites and type of development. In other words, therefore, *full service*, and this cannot be done on the kind of fees architects are prepared to accept from spec. builders. Cut fees, official or otherwise, can only undermine the architect's influence.

I must apologize for having abused my position with a captive audience by these lengthy generalisations, but I shall not get another opportunity. I should like now to spend a little time in dealing with some practical aspects of my own work. My own starting-point was the idea that there were lots of people who wanted to live in modern buildings—even if they didn't know it. I also thought that one ought to apply a serious architectural approach to this problem, as to any other kind of building, although I have discovered that there are some commercial issues which are peculiar to speculative development, very comparable, say, to manufacturers of umbrellas. They are made and sold for a profit. I have tried to operate as might an industrial designer working for a manufacturer, by interesting myself in the 'market for the goods', and by trying to rationalise the manufacturing process, though Heaven knows the rationalisation of the building industry is something one ought not to tackle on one's own. The general design basis has been to use simple crude building elements involving the highly repetitive use of structural elements and equipment and—this is an architectural heresy—involving repetition of similar buildings on *different* sites. Alongside this repetition I have established the need for constant experiment, not only in architectural detail, but of unit planning, and of site planning. This means that the developer gets some 'sales continuity' and at the same time 'new models' are also being tried out.

The slides which I have to show I have chosen to illustrate broad principles. They do not cover a lot of ground, but they are intended to show that in the first flat building plan the crude basis, the structure of standardisation, is the cross-wall which it is possible to build two or three storeys high and, in fact, higher still. (*A small selection is illustrated here.*)





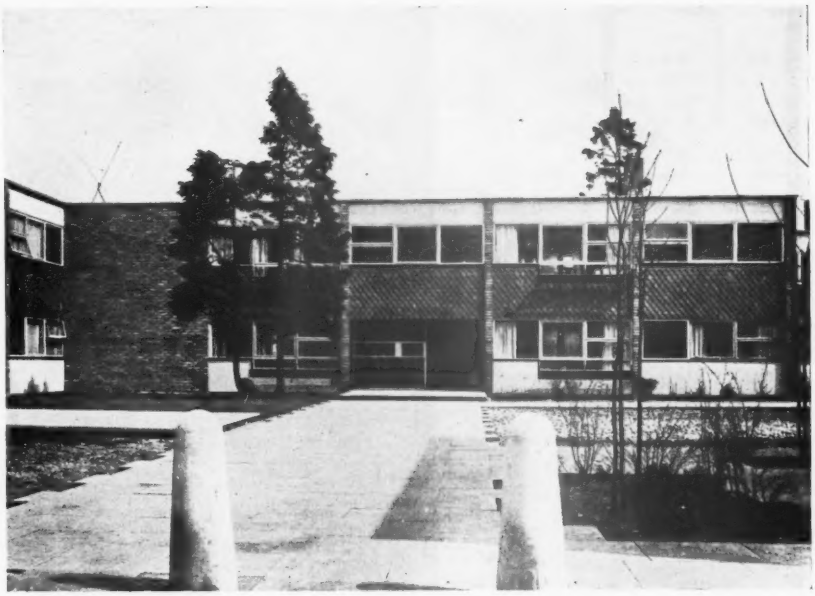
'The method of assembling the flats is in this form of H plan, the four-flat floor, showing small service balconies marked 3 and common stores for fuel, bins and so on, marked 2. (Centre, left.)

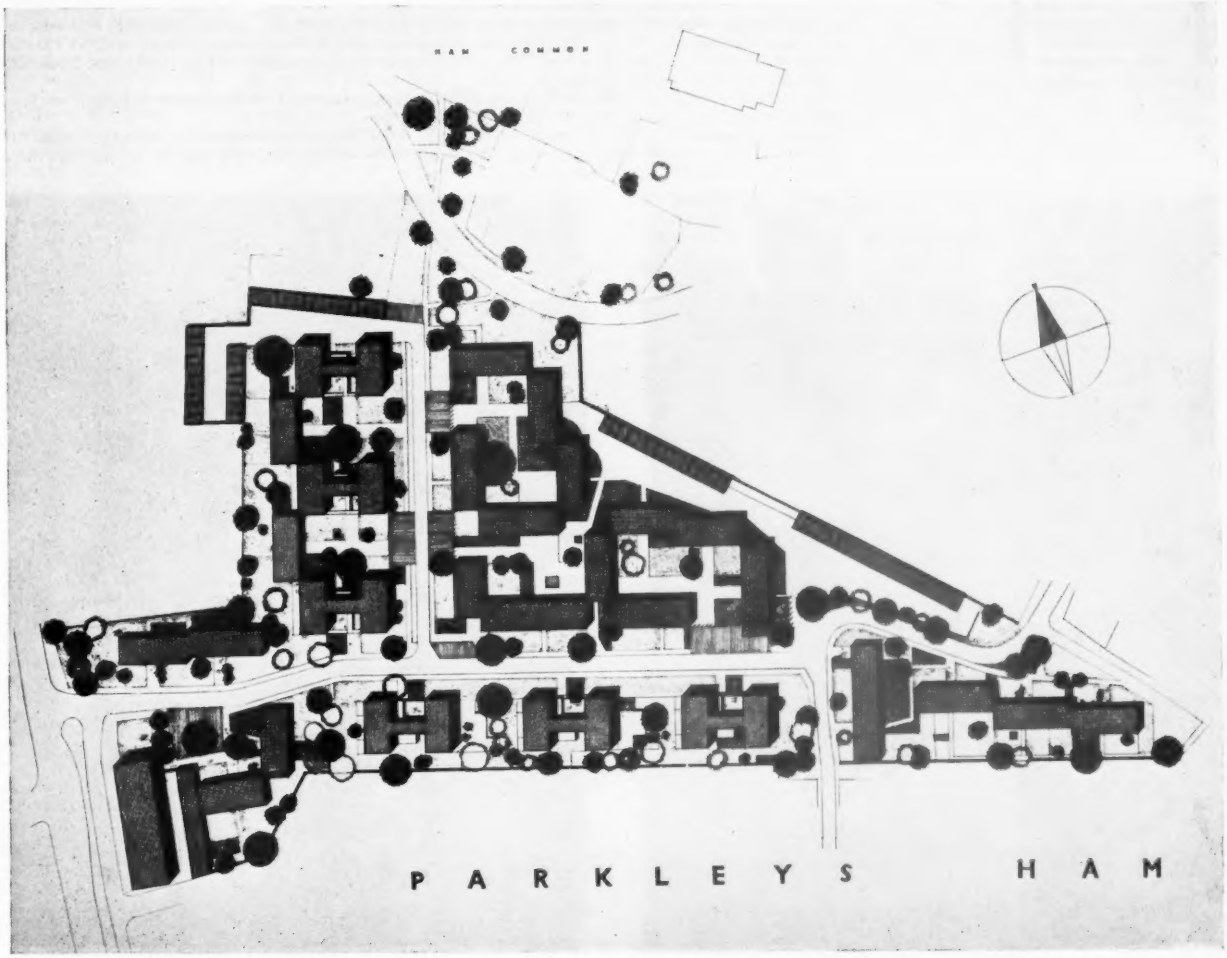
'This shows how it looks as a unit on the approach side. All the services are completely screened and contain not only the washing but the drainage pipes and so on. (Top left.)

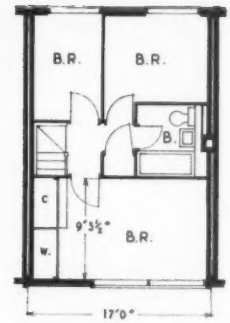
'The other method of assembly is the terrace form, two flats a floor, and the lower plans show the ground floor. This is a very simple device which means that one is able to expand to any length and turn corners and form enclosures. It was the idea of forming enclosures that particularly interested me. (Bottom left.)

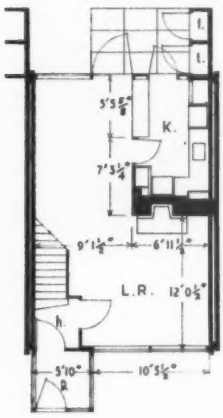
'This is what the terrace flats look like as assembled at Ham in which every bay is defined by its cross-wall, a device we tired of and have moved on from. But what you are looking at now is in effect a block of four flats. (Right.)

'The lay-out of this peculiar site is at Ham. It is a very difficult shape, and my particular interest was the formation of the courtyard which I thought was a neglected form of living environment. The courtyard is not a dead space. It is actual circulation. All access for trades and services is on the perimeter and the courtyards are used for pedestrian access only.' (Below.)





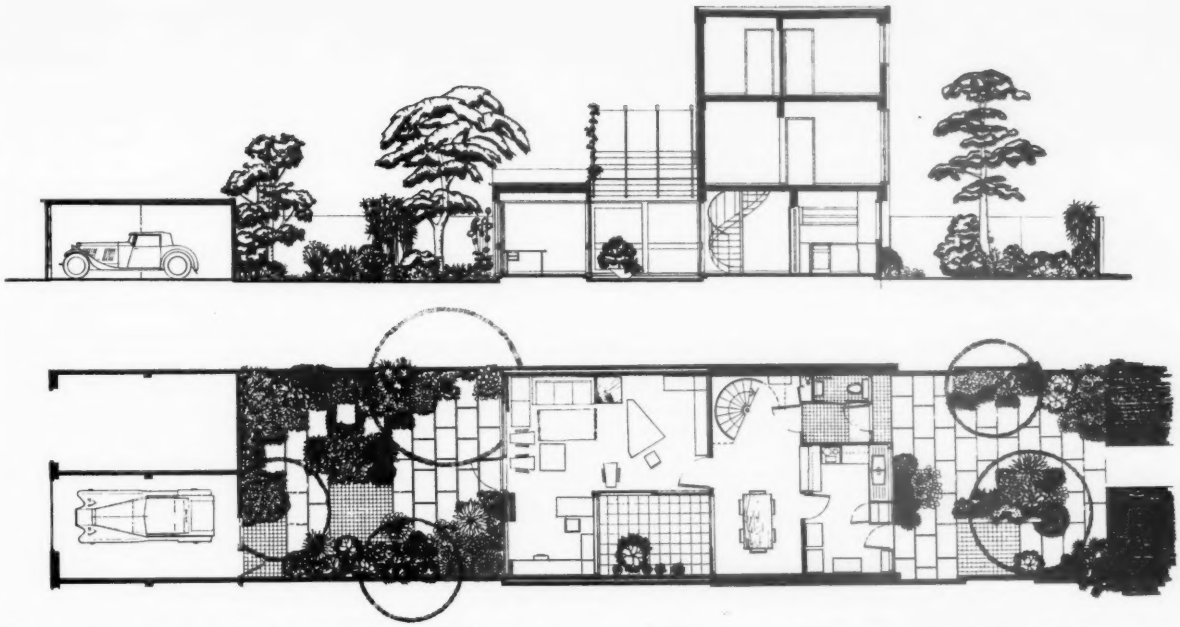




'A small house which has been very popular in the Sales Department and has been built in a number of places. The area is 785 ft., 17 ft. frontage, clerestory light, with a broken pitched roof, which also lights the hall above. The little "port" houses the pram and washing machine and other odds and ends, according to people's interests.

'The back of the house: rather a fine view of a very small garden. This is the sort of garden you can look after with a vacuum cleaner. (Below left.)

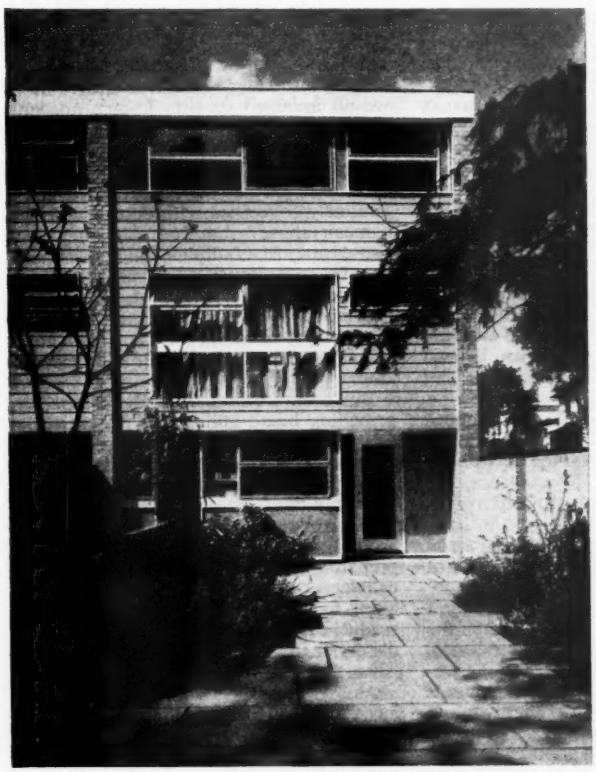
'A view out to the back of the houses. On the right is the fitment that divides the dining end from the kitchen. It is a tradition which is dying hard that it does not matter if you have to go through three doors with a tray of soup'. (Below right.)



'This is one of my big "flops". The house which is three-storey has very small upper floors with a very small court-approached garden at the rear, very tiny again, on to a mews for a car. You do not have to have that shape of car, but it is very popular in my office.

'The plan of the ground floor diverted a comparative area of the garden to the house. There is some special virtue in the small garden, I think, when the house can dominate it rather than the other way round by falling between about 600 stools, which most suburban plans seem to do.

(Below). 'A view of the front court which is inside the courtyard screening. At the front one goes through a comparatively small opening in brickwork. The kitchen door is to the left, behind the shrubbery, with a dustbin on the left. It is another way of solving the problem as an alternative to putting up those delicately contrived slat screens that always look like dustbin enclosures. The house at the rear has a little roof terrace, strictly against the London County Council Building Act.'



I must now say something about the ideal clients who have provided me with ideal conditions, after I had beaten them regularly and firmly. Not only do they do as I tell them. They tell me to do it better next time. One of their contributions has been the perfection of a special technique of leasehold purchase, which is effecting a quiet revolution in property ownership. It has solved the old problem of maintenance of common spaces and structures, and also involves each resident in the autonomous Residents' Society which runs each estate. It means that I am perhaps too often made aware of my own shortcomings by these societies, particularly when architects make the mistake of buying some of these places, but the developers themselves gain real experience. This experience inevitably means more demands on their architect, and I can only hope that I can continue to meet these demands—or look as though I am doing so.

There is a major obstacle in the path of the architect working for a developer. The building societies, with few exceptions, and despite claims to the contrary, maintain an atavistic attitude towards housing and seem to be happiest with the so-called tradition of half-timbered Georgian—what Osbert Lancaster calls Pseudish. The 'P' is silent. In times of financial stress—which we may regard as normal now—they only show interest in suburban horrids and seem to believe that modern architecture is just a passing phase and a risky investment, because people may not want to live in them in ten years' time. This attitude is changing slowly because I do know of two of the largest societies who see the inevitability of change, and are being helpful, but generally speaking the societies remain unmoved by our convictions.

The point is that architects are not regarded as the experts in housing. The trouble is that people *live* in houses; they are naturally more prejudiced about this type of building than any other. We have to overcome this atavistic drag if we are to change the pattern of human habitation. I think we should change it. I think that it is clearly our responsibility to see the need for change, not for mere architectural novelty, but because of the fast changing social pattern. Unfortunately there is no 'market research' on this problem, so we must experiment, and I think that the spec. builder could provide the architect with the right kind of opportunities for this work. It seems to me that this is a worthwhile idea which can be realised, if we offer the developer a thorough technical service and guidance and are prepared to *sell architects to the community*.

VOTE OF THANKS

Mr. George Grenfell Baines, A.M.T.P.I. [*A*]: I am sure that we are all warmly grateful to Eric Lyons for a most fascinating and livening and enheartening account of his work, a real success story. Personally, Eric, I am green with envy at your payment, your clients and your progress. It is a nice friendly sort of envy—moss green rather than viridian. I am sure that it must encourage not only myself but a lot of architects here who go on as we are doing, though not quite with your spectacular success, to keep the builders with us.

You are absolutely right when you speak of the end of a collection of individual houses and possibly the beginning of a return to the Georgian.

He speaks of collaboration with planning officers. I agree entirely about that, and I would say there is another design and planning organisation in the county from where I come—Lancashire. We have awful development there as well, and I have come to the conclusion that the fault is not in our Acts of Parliament but in our own acts. Architects have to take a new interest in balanced design, and I hope during the discussion something will come up about that. We have to take more interest, too, in layout. I have been fascinated by his layouts. I should like to know the secret of how he can get his buildings so closely together. Some of them look far nearer than 70 ft.

Part of the secret, which is not mentioned, is Townsend's resignation from the R.I.B.A. There you have the link man, the real intelligent link between Eric Lyons and the builder.

I agree with some of the things he says, but as Chairman of the Committee who has tried to evolve a partial fee for a partial service, I have to say that yours was a perfect love match. You have almost a perfect client. He has obviously swept his client along with him. We have to face it that it is not a question of people not valuing us. I do not think a lot of builders want us as yet, so it is not cut fees; it is a question of finding where we can gear in to begin with. It is the thin end of a wedge. We hope we shall be as effective as yourself.

This is supposed to be a vote of thanks and not variations on his original theme, and so I am sure that I have all of you with me in thanking Eric Lyons. After all, he has put this over in the way that we would expect when we know about his work. We are proud of you and very grateful indeed to you for coming here tonight.

Mr. T. B. Harper Ellis, A.R.C.A. [*A*]: Of course it all depends on your builder . . .

There was one once—who and where I am not prepared to say, but you'll have met 'em!—who said when asked if he had ever built in reinforced concrete:

'I've done a few lintels and beams. Some architects likes the reinforcements at the top and some likes it in the bottom, so I puts it in the middle.'

I hope we shall not have to look on his like again.

I sometimes wonder whether the standard method of measurement and the bill of quantities frighten the speculative builder because it does not give a precise account of the work to be carried out. So often the contractor breaks down the bill and sends, for example, the plumbing to a subcontractor who, when he reads 'connect 1½ in. waste to Belfast sink, pass down and through wall' automatically covers himself in his pricing against such a loose clause.

The method of measuring in situ and precast reinforced concrete work does not always take into account the repetition and sequence of operations, and where joinery fittings may form a large part of the work, a bill to cover these items thoroughly would be as thick as for the remainder of the work.

I could give many other examples, and I think the remedy is for all drawings, including full-size details, to form part of the contract. This, I think, would show to a builder that the architect by his training, drawings and help on the site (in other words Eric Lyons' 'full service') can save the client and builder thousands of pounds.

Items are now measured in such a way that the architect may change the silhouette, for example, of reinforced concrete in the most complicated way without any change in the pricing, and against this a builder naturally covers himself. I think a change to the 'full service' would lead to the improvement of the relationship between contractor and architect, so that more speculative schemes where the architect is employed directly as Eric Lyons is suggesting may be brought about.

I have great pleasure indeed in seconding the vote of thanks for this most stimulating lecture.

DISCUSSION

The Chairman: The vote of thanks having been proposed and seconded, it is now open to any of our members and guests to take part in the discussion. I know that Mr. Culpin is here, and I wonder if he would be good enough to open the discussion.

Mr. Clifford Culpin [*F*]: It is clear that we are all indebted to Eric Lyons, not only for the provocative and stimulating and witty things he has said tonight but for the tremendous impact his work has made upon that part of the profession which is genuinely concerned with domestic design. I mean those who are concerned with houses not just as another source of income, but because housing, in all its forms, accounts for a major part of the total output of the building trade and is by far the greatest devourer of space in what is becoming England's *pink* and pleasant land.

But even from the mundane aspect of providing bread and butter for the architect, it is deplorable that an enormous volume of potential work is slipping through the professional net. This, I feel, is mainly the fault of the architect himself who, while only too willing to fiddle around with the odd single house, is not prepared to study and master the particular problems of speculative building and is too aloof to soil his hands with anything so sordid! That attitude has done a real disservice to the profession and incalculable harm to the country.

As Mr. Lyons has said, planning control has virtually failed to improve standards. Mediocrity is the accepted level and planners find it a waste of time to reject

designs of a standard no worse than hundreds of examples around, knowing that refusals would not be upheld on appeal.

It was as a practical step towards lifting some of these dwellings out of the slough of despond that some of us fought hard—and successfully—to get recognition by the profession of partial fees for partial service. Of *course* this arrangement falls far short of perfection; of *course* it is not a solution; but I do emphatically disagree with Mr. Lyons' remark that it is a great disservice to architecture. In my opinion—and, I think in Mr. Grenfell Baines' opinion—it is better for the building owner, better for the community and in the interests of architecture that the all-important *design* element of architectural services should be done by an architect (not at a reduced fee, but for a *part* fee for those *part* services) than that the whole job should remain in the hands of a chap who 'gets out plans'.

This small interim measure need not, in fact *will* not, retard the progress of educating the public in better domestic design. Mr. Lyons has proved that there is a market for modern architecture and he and those with whom he has been associated have supplied that market in an outstanding way. But the customers are the enlightened few, the people who read the company's refreshing advertisements in those 'posh' fivepenny Sunday papers, those too rare folk who combine good taste, a determination to be 'modern' and the means to carry it out. They belong to the group who on Sunday prefer to sip Tio Pepe as they listen to The Critics while the average and typical house-purchaser is earthing up his potatoes or staking his dahlias. The people for whom Mr. Lyons has catered are in fact (more's the pity) an almost microscopic part of the vast owner-occupier public for whom dwellings are being built at the rate of over 100,000 a year.

Mr. Lyons is quite right about the attitude of those important people, the building societies, towards simpler better design. The people at the top of the leading societies whom I have approached are anxious to improve standards and one of the Big Five was willing to sponsor an open competition as a stimulus; but I am afraid that in the branches, where the business is done, designs are 'vetted' by surveyors who are, to put it kindly, unenlightened and look askance at anything unfamiliar.

I feel that in his own work Eric Lyons shows a keen sense of entertainment. I get a lot of fun out of Independent Television, not so much from the programmes as from the advertisements. Mr. Lyons anticipated these by several years, when by carrying his glazing right across larders he enabled us to see which householder enjoys Nescafé, which prefers Bev and which, like Yvonne Arnaud, plumps for Chico. But not only is the advertising catered for: a moving panorama of life unfolds before us. A client of mine, visiting one of the flats, was intrigued to see, as on a stage before him, how life was being lived in one of the other flats. Not the flat across the way, Mr. Chairman; he could see across one courtyard, right through an unlighted flat, across another court and into the flat beyond.

Now I know that tonight's speaker can be very forthright, so I hope that in making these comments I have not, as it were, thrust my head into the Lyons' mouth! Let me say quickly, and with all seriousness, that I admire his work tremendously. Without giving away any Panel secrets I can say that when I served on the London Housing Medal Panel and visited what were regarded as all the best jobs in Greater London, I personally saw nothing better than Eric Lyons' work.

So let us follow his lead and strive for greater architect–spec. builder collaboration. The Symposium 'Design Pays' on 2 May, in which Eric Lyons will be one of the speakers, will give us a chance to show we are willing to co-operate in the vast programme of private enterprise house-building that is before the country and not merely to provide for those very special few who can say with Michael Flanders:

We're frightfully House and Garden at number 7b,
The walls are patterned with shrunken heads
Ever so very contemporary,
Our search for self-expression leaves us barely time for meals—
One day we're taking Liberty's in, the next we're down at Heal's.
With wattle screens and little lamps and motifs here and there,
Mobiles in the air, Ivy *every*where,
You mustn't be surprised to find a cactus in your chair
But we call it home sweet home.
We're terribly House and Garden so I think we said before,
But though 7b is madly gay, it wouldn't do for every day.
We actually *live* at 7*a*, the house next door.

The Chairman: We also have with us Mr. Townsend, who was a former partner of Mr. Eric Lyons until they made the great divide or split or whatever you like to call it. I am hoping Mr. Townsend will tell us how it works out.

Mr. G. Townsend: A number of comments have been made tonight which I do not accept, and I should like to mention them in the first place.

Mr. Lyons has given a very convincing demonstration of what can be achieved with the architect and the spec. builder working together as a team. I have been at the receiving end of his activities for many years, but as a renegade architect I am not really a normal spec. builder. I spend most of my business life torn between admiration of Mr. Lyons' work and the desire to implement the new ideas we discuss together and balancing the budget which I have to look after very carefully.

I was rather horrified by Mr. Lyons' first suggestion that spec. building should be banned as a possible thesis. I always feel myself that all the varied qualities which we admire today in our cities, towns and villages were created in the past by private enterprise, either as a result of general good taste or more often by the efforts of architects of competence or genius, working under the patronage of the great landowners or enlightened developers. If I may say so, I do not feel myself that we are likely to get an architectural and socially acceptable development under, shall we say, the patronage of local authorities or any authority working through committees. It is almost impossible, and I personally think Eric has found this in the jobs he has done so far.

I think, therefore, that I would strongly endorse the third solution which is that the architect should work with the developer as a team—and much more fully than in the past. I do think that the architect going into this field must be very competent and must appreciate and meet the client's difficulties and anxieties, which are very real, without compromising his principles. I think we ourselves in my organisation prove that private housing development in architectural terms is possible and that a modern environment and modern buildings are sought for by quite a considerable section of the public. Admittedly, they may be extroverts on the subject of looking through flats, but there are people who are very happy in them, and we even find it possible to give them full architectural service and still show a profit.

Mr. K. J. Robinson: I do not want to set the meeting off on a frivolous note, but this has to be got out of the way at the beginning. The last speaker but one gave the impression that there was absolutely no privacy at all in these flats of Eric Lyons. My only complaint as a resident in one of them for two years is that there is a very delightful nineteen-year-old nanny who is only just across the courtyard, and the arrangement does not allow me to see her at all. The flats are so well planned that there is no overlooking. I just wanted to establish that point first. I may get angry about something else later as a very staunch supporter of the schemes.

Mr. G. F. Sheard [*A*]: I should like to know whether Mr. Lyons thinks it would be advantageous to a good design if the present rules which proscribe architects from taking part in speculative development as a principle were washed away. Would Mr. Lyons recommend that or would he prefer to remain an architect in an independent professional position, working for an enlightened buyer?

Mr. Locke: I am not an architect, but I am interested in speculative building. I should like to ask Mr. Lyons one or two things about his scheme.

The first point that occurs to me is the question of privacy. Whereas the ordinary speculative builder provides a small garden which is more or less private for the children of the owner-occupier, apparently

the children can rove about all over the area that is planned as a square or enclosure. That might not work entirely well, and I should like his comments.

There is a natural human urge to saw wood in the garden and get into the shed to make something. Few flats provide for this, and that is a weakness. But there may be some system whereby this is done communally. You must live a communal life in these schemes and perhaps that only appeals to a small proportion of the population, the extrovert type. Many people like to go in and shut their front doors after spending the whole day with the rest of society whom they are up against the whole day long. They do not want to hear anybody else until the next day.

Many people still consider houses better than flats from the point of view of general ways of living, and Mr. Lyons' effort is apparently concentrated on flats. I should like his comments on that point.

I feel people get the houses they deserve. They pay a certain amount and get a vulgar thing that just about works pretty well and is not too 'pricey', and the question of price is all-important. The price of the architect must be paid, and his fees are a very important consideration. Also the speculative builder has to face the fact that he is controlled practically the whole time by the architect and cannot do what he likes himself if he puts himself so completely into an architect's hands.

Mr. F. Lee (Building Societies Association): I am here by invitation, acting for Mr. Fred Bentley, Chairman of the Building Societies Association.

Building societies, I think, if they had no other commitments, would like to support right from the word 'Go' Mr. Eric Lyons' designs. But the first job of the building society is to attract savings and be able to pay them back. The building society has accordingly to take account of changes in design and taste and how long these changes will take to work themselves out. If I may quote a case in point, maisonettes, or as you know them two flats out of one house, were not popular with building societies for a long time. They were not popular with them immediately post-war. But in a space of ten years maisonettes have come to be accepted. From the building society angle the market has been proved, and we realize that the funds are safe. It may take ten years for Mr. Eric Lyons' designs to prove themselves. They may prove themselves in less time, but I can assure you that as soon as they are satisfied that these dwellings will command a market equal, first of all, say, to the maisonette and going back still further to the small house, building societies will be very pleased to lend money on them.

I feel I am entitled to point out to architects that building societies were not established to promulgate architecture or encourage new designs in housing. These may be subsidiaries, but the first aim of the building society is to promote savings and then to lend them on proved buildings.

Mr. Walter Bor [*A*]: I should like to speak from the consumer's side. I am one of the architects who has made the mistake of buying one of Eric Lyons' places not once but twice. I sold my first one at a handsome profit.

On the more serious side, I should like to thank Mr. Lyons and the developers for the social aspects which have been created in their developments. I have served on one of the Residents' Society committees and have found that the new community which has been formed has been a very happy one. A number of sub-committees were formed —parent sub-committees, social sub-committees and so on. There is no question that the children are very happy, even if there are occasional tiffs among the adults. I do not think there is any difficulty about privacy. It depends on what you expect.

Most of us experienced great difficulties in raising mortgages, and I should like to add to this that the type of people who are interested in this sort of development are not necessarily the people who are well off. It does provide a new alternative to people who do not want to live in normal spec. built development. On the other hand, they have no chance of getting off the housing list. I am one who is grateful to Eric Lyons for providing us with this opportunity.

Mr. Lee: May I say that I used the whole of my time to try to reply to the building society case and forgot to say how much I as an outsider enjoyed listening to Mr. Eric Lyons and how much I think that in due course we shall come to appreciate what he is doing.

Mr. D. G. Howard (President, Federation of Registered House-Builders): I feel rather like Daniel in the lions' den, because I am a builder and represent that much maligned individual called the speculative builder. Nevertheless, I can assure you that the more progressive types among us do very largely agree that the standard of design has to be improved in speculative house building.

But I am afraid we do not go all the way with Mr. Lyons who appears to me to adopt the attitude that for him it is all or nothing. I say let us have something if we cannot have all.

If we are to achieve this collaboration between architect and builder, the architect must recognize that the builder by virtue of the fact that he is both building owner and builder cannot be expected to look for exactly the same service as where the architect is employed by a lay building owner and a contractor does the work. That is a different set-up. I cannot imagine that any house builder who is conscious of the need for good design would fully accept Mr. Lyons' contention that he must have the full architectural service that the ordinary private client requires. If the architect is going to stand out for this, he is doing a disservice to the cause of good housing, because he will find very few clients similar to those for whom Mr. Lyons is fortunate enough to work.

We certainly admire the work he is doing, but it is out of the ordinary. That is my point. Such things as contract supervision and landscape design are not matters which usually crop up with the average speculative builder who is himself a builder and does not expect the normal supervision of the architect. It may well be important in flats schemes, where purchasers have few ideas of their own concerning gardens and so on.

I like and admire the finished product, but in ordinary speculative work the average person wants a garden and has ideas of his own about the layout of gardens. But I quite see the beauty of Mr. Lyons' scheme.

As I see it, the architect must claim no greater part than the designer in many other types of production. I am sure that the author of a play, for instance, would not as a general rule expect to be in full charge of production as well; nor does the designer in a motor car factory have complete supervision once the process has passed from the drawing board to the production department and the final assembly line.

Finally, I would say do not discourage the architect who is prepared to give the builder a limited service, because if the good architect stands aloof, there are plenty of mediocre designers who will accept the work and we shall all be the losers.

Finally, I should like to say one word about the House-Builders' Registration Scheme. A good specification has been set up and many hundreds of builders are adhering to it and using certificates of compliance with the standard. That is a good step towards good construction. I know it does not ensure good design, but we are trying to upgrade the standard of our work, and I feel the next step is to get closer together with the architect, even if we are not going to have a complete wedding at the start.

Mr. G. Treadwell [*A*]: Could Mr. Lyons tell us exactly why the three-storey houses were a failure? Was it a financial one or a matter of planning, or did he feel they were not good enough for him? One hears so much of the usefulness of three-storey housing elements in planning. We have so few examples of modern three-storey housing and it would be interesting to know why this particular example was thought to be a failure.

Mr. F. T. Bush [*A*]: Nothing has been said about sound transmission. I should like to ask what steps Eric Lyons takes to overcome that very difficult problem and whether he has been successful.

Mr. Kenneth B. Wood [*A*]: My question is directed not to Mr. Lyons but to the representative of the building societies. While we are waiting for the ten-year lag, where do those of us who do not want to live in the horrid suburban house live? We cannot raise the money because he has to wait ten years before he is sure the design is going to be acceptable.

Mr. Lee: I am afraid as far as the building society is concerned you have no alternative. You cannot get your money from the building society. Apparently you cannot get it anywhere else. It may sound easy to say that, but the position, as you all know very well, is that the building societies could lend a lot more, 50 per cent more—if they had the money—without the slightest difficulty. We lent last year more than we lent the year before, in spite of the fact that most people seem to think we were not lending at all. We just have not the money to go round.

If you are a business man, you have the alternative of lending to A or B. A has been proved by one hundred years' experience, and B has not been proved yet. What are you going to lend on? I am sorry you are unfortunate enough not to be able to get a mortgage, but we have to run building societies.

Mr. D. S. Dawson [*A*]: Could Mr. Lyons tell us the secret of his success as regards leasehold property? Where private ownership is concerned, it is unpopular in many parts of the country and seems to be quite a stumbling-block.

On the 'one-off' house, it seems that a number of would-be owners would go to architects if they could get the land. The reply of many would-be clients is often that they would like to employ an architect, but the speculative builder is very active on the land and they cannot find a plot.

Miss J. M. Albery [*A*]: I should like to put two points.

First of all, I want to know whether the speaker would agree that the speculative builder does not build houses which are nearly as economic as they should be, and that an intelligent architect ought to be able to show him how to build them cheaper. I myself, though I have not very much experience, am firmly convinced of that point.

Secondly, would he agree that the layout of housing is the most important contribution that our profession can make on the design side?

It has been asked why so many flats are built and whether houses are not more popular. On the face of it, there is undoubtedly a widespread belief that this is so, but there is a great demand for bungalows, and I should like to know whether Mr. Lyons thinks that a well-designed flat such as he has built could fulfil this demand for bungalows which I have always felt could be compared to a demand for a flat.

Mr. A. Upton [*Student*]: I should like to add to the point raised by Kenneth Wood about mortgages. There is an alternative to A and B. There is C. That is the local councils who are able to lend. I have been able to obtain a mortgage myself in this way. They have a more enlightened outlook in some districts than building societies. I know because I was turned down by the building society but passed by the local council.

Mr. N. Plastow [*A*]: Would Mr. Lyons give us the names of the two building societies who were so co-operative?

Mr. D. S. Tucker [*A*]: The builder who puts up Mr. Lyons' developments is not the same person, I believe, as the person who promotes them. This obviates the builder's dislike for supervision. In this case, Mr. Lyons can supervise the builder on behalf of the client. Would he confirm whether this is correct or not?

Mr. Alan Blanc [*A*]: Who supervises Mr. Howard's House-Builders' Registration Scheme? Is it the architect or the builder?

Mr. Howard: It is not my scheme. It is a scheme which is sponsored jointly by the National Federation, the Builders Federation, supported by this Institution, by the Building Societies Association and many other worthy bodies, such as the Chartered Surveyors and so on. They have a council and a staff of surveyors who go round the countryside inspecting houses as they go up. Supervision is not continuous. No one pretends that it is. But the builder abides by the specification and the Registration Council guarantees that he does. If he slips up he has to put things right, and the Registration Council stands by the certificate. It is quite a good scheme, though it is not one hundred per cent.

Mr. Lee: May I support Mr. Howard in saying that the statutes of the land give better terms where houses have a registered builder's certificate?

May I also say that the local authorities can charge losses on the rates but we cannot.

Mr. W. Purcell [*A*]: It does seem to me that the most important thing in any development with a speculative builder is first to try to convince him that we as architects can build cheaper than he can. I by experience have discovered that the average speculative builder's objection to an architect is not that he feels the architect won't do him any good from the design point of view but that if he employs an architect the ultimate cost of his building will go up.

I feel that we have as architects to study the question of costs in speculative building very very thoroughly, because it is basic. This is the one thing we have to do—to get a basic agreement with our speculative builders before they will begin to employ us.

Mr. N. S. Farrow (President, London Master Builders Association): I am a builder and I should like to support the last speaker and Mr. Lyons. The architects have to sell themselves in this matter, and I do not think they have done so up to the present time.

I would think that a large number of speculative builders have used architects. You have seen the results, and a lot of people tonight have complained of them. A more enlightened approach has to be made by the architect, and one must not look at the design only. One must go right back to the fundamentals of market research on costs. The architects have to go at it very much more seriously to make the impact which Mr. Lyons thinks is possible.

Mr. Colin Jones [*A*]: I feel that architects cannot play with the question of building costs, no matter how careful the analysis they make or how close their collaboration with quantity surveyors and so on so long as they are divided from the direct process of building. My own feeling is that this question of cost will only be dealt with when the architect and contractor are actually working together.

The Chairman: Is there a quantity surveyor who can follow with some observations?

Mr. H. J. Rayner: I feel I must accept the Chairman's challenge. I do not think you architects are doing yourselves justice. When you look at the picture of local authority housing throughout the country, you get an average price for 914 or 900 ft. houses round £1,478. That is a sign that it can be done. The architect can do it. When you go to the speculative builder, I can assure you that from inquiries I have made the margin of difference is quite tremendous. Instead of a range in price round 30*s.* per foot super, the average for local authority housing, a speculative builder with any idea of a plan, a rough and ready one, will talk in the region of £2 10*s.* per foot super. I am positive that an architect can get within the gap, and it is a bit of an exaggeration to say he cannot. The average architect should not be so self-conscious. It can be done and it is being done in local authority housing throughout the country.

Mr. Purcell: I should like to take you up on that point. The price the average speculative builder pays for his tracts of land is far and above that which is paid on compulsory purchase by local authorities. This is where the main difficulty lies.

Mr. Rayner: I am not thinking of land costs but the average council building costs within the curtilage as compared with the price a speculative builder will quote apart from land cost. If you go to a speculative builder with a plot of land and say you want a house built, you will want at least £2 10*s.* per foot super.

The Chairman: Do you accept that?

Mr. Purcell: Not really. I am sure there must be some speculative builders sitting in the front rows who will bear me out. I agree with Mr. Rayner that if you take one plan to a speculative builder and ask him to build for you, he will tell you it will cost £2 10*s.* per foot super. If you take it to him as a speculative development on a tract of land where he is going to build up to 400 houses, he will expect to build that same house for 30*s.* or even 25*s.* per foot super.

Mr. Lyons: When the last section of this evening's entertainment started, I thought it was going to be a pushover. George Grenfell Baines' kind remarks reminded me of the old gag about praise or flattery—and I settle for flattery. But the grin has gone off my face now, and I must deal with these serious points.

George Baines cannot have my client. He was rather envious of that, but he is very jealously guarded.

On the question of the buildings being close together, in my view they are not close enough very often. I do attempt in building at fairly high density with low-level buildings to study this problem of external relationships. I find local authorities singularly unfamiliar with the problem, so we have to have a difficult basis of negotiation.

I think it is *full services* or none. I do not think there are two ways about it. So much damage has been done by partial service, and so little effect has been achieved that we may as well leave it alone, although it may have given employment and put food into the mouths of architects' children. I still feel there must be another way.

As far as the type of people who live in these flats is concerned, I have been very surprised to find they are extraordinarily mixed in age and background. They do not all read the 'posh' Sundays, and a lot of them, I think, have never heard of Tio Pepe. Some of them ride bicycles and a Rolls Royce has been seen on one of the estates.

Privacy is a difficult matter. When one is building high density this is a real problem, and if you want to live alone you cannot live in towns. To be avoided is this awful compromise, the suburban compromise, the solution which solves nothing, this idea that if you live in a semi-detached house, it is better than a terraced house. If it is detached it is somehow better than a semi-detached house, somehow more private. It is nonsense. Houses are inevitably placed cheek by jowl. As for the larder, no charge is made for it at all in the advertisements. It is all part of the modern world.

The question whether architects are better employed in the builder's firm is a very touchy one. It is rather like the argument about the employment of industrial designers. Is it better for an industrial designer to be fully engaged in a firm or outside it? I think the general conclusion is that we need both, and the existence of outside architects and designers will always stimulate and provoke your resident character as he gets on in years.

Again on the privacy issue: the small gardens do form a new approach. They are an idea which is a response to a real social pressure. People living in flats have one considerable advantage over other people living in houses—the advantage of looking out of the window and watching someone else flogging up and down with the lawn mower, sawing wood and everything else. We now have something I have not shown this evening, because I felt that one does not show things on the secret list. We have a scheme for trying to make a house not a house, tied up with flats, having a fully private garden but yet not having all the responsibilities of keeping the roof on. (I do not mean not having it blown off: that happens even to the best of us! I have in mind the problem of maintenance of buildings) and what we are trying to do is to think of a name for this new entity. We have got as far as 'flouse', but it is not quite what we want.

House-building costs *too little*, I think. We are all able to make judgments about different washing machines and umbrellas, and we do not necessarily regard the cheapest furniture as the best. We know it is the worst more often than not. It is about time we assumed some real responsibility here. We should at least not build much dearer than the spec. builder. We can, on occasion, build cheaper. Above all, we should at all times be able to add some value which is at least equal to the miserable pittance we are paid. This, I think, is the critical factor one has to decide—whether going for the cheapest possible unit, reducing everything to the cheapest possible element, is necessarily the wisest way.

I am very embarrassed by the presence of building society representatives this evening, and I hope that I would not have been ruder if I had known their representative was here. But seriously, I always understood the primary object of building societies was to promote houses, and I did not know it was to secure investment. I realise the importance of promoting housing on a financial basis of investment. It automatically implies security, and I am surprised to hear it is the other way round. The strange thing is that even taking it the other way round, the building societies seem reluctant to see that the scheme with a real maintenance guarantee and a system of control over the future of the buildings must mean that the value will be maintained more easily than for the detached or semi-detached house or the usual horror under amateur control on the 'do-it-yourself' basis which is general today. Mr. Bor's happy experience in selling at a profit is enough evidence, and I hope he continues to move profitably on!

It must be shocking to architects to have defended the principle of maisonettes. We must not be confused about this word. It literally means a little 'twee' house. It does not mean superimposed flats, two-storey flats. It means making four flats look like a pair of semi-detached horrors, and this principle is most ingenious. The basis is to parcel out the land precisely and leave no residue and everyone has a bit to look after. One subdivides the back garden into two pieces. One eliminates common spaces wherever one can and hopes it all gets looked after all right. This is an extraordinarily dangerous procedure, but it is acceptable to the building societies. It is fantastic to me.

The scheme which has a Residents' Society very carefully formed on a non-profit-making basis under the Friendly Societies Acts—it is control with a public order to look after it and so on—is a method of guaranteeing the permanent maintenance of the building, and not only the building fabric, but the gardens and general amenities. It is also of singular benefit in involving each individual in the idea, each person who lives there. That seems to be socially a tremendous thing. Again, the building societies regard this with suspicion, if not alarm, because it goes against their established tradition. The building societies have not been in existence a long time, and their real growth was in the inter-war years with the vast spate of despoliation that took place all over England. It is not surprising that anyone immersed in these schemes should not understand our problems. But I would like Mr. Lee to believe me when I say that the buildings that I have done are not necessarily revolutionary. They are 'second-year stuff', elementary bits of architecture, and they involve no *new* principles. They represent the beginning of a change, and it is rather disturbing to think that they are classed as an architectural revolution.

As to the difficulty which Mr. Howard has to face as a builder, unless he does something and recognises architecture he will be out of business as a spec. builder. I am sure that eventually unless something happens spec. building will be banned, and I think it will be a great loss. To me anyhow it will be a loss in all sorts of ways.

I hope I have effectively made the point that it is a possible laboratory for the architect, a possible field of activity in which he can make his contribution without having half a dozen committees on his neck. I know one architect who works in a New Town. He told me a drawing coming out of his drawing office is examined by 200 people before it gets back to him. It stands to reason that out of 200 people one or two are bound to say something, and quite obviously the original idea easily gets trimmed and smoothed at the corners.

I like to think the failure of my three-storey house was not an architectural one. It was, I believe, more a question of putting that particular house in that particular neighbourhood, and the developers think that had it been built in a different neighbourhood it would have been commercially successful.

I do not think the sound transmission problem is tremendously difficult. But I do not think there is any perfect solution, because whatever sound insulation one applies, in the end windows will be opened—even in semi-detached houses! We generally use a solid floor and a timber floating floor in flats with hollow party walls and so on. I do not think it is either difficult or expensive. The results are fairly good with reasonable supervision.

I am not the man to answer the question about leasehold advantages, but I am told the advantage of leasehold sale is the sanctions that can be applied by the ground landlord in the event of failure on the part of any individuals in their contract.

As far as I am concerned, it does not affect me whether it is leasehold or not. The important thing is that the Resident Societies are in charge legally and formally.

They have their own committees and take an active part. If someone's child starts digging up the lawn, someone will want to know why. Everyone has a stake in the issue.

I agree that the layout is vital. This is what interests me most—how one can reinterpret existing town shapes; and how one can collect together groups of small buildings. It is a tremendously difficult problem, one I continue to cope with.

There is needless to say a social pressure for flats. I do not think bungalows are any kind of urban solution.

As to the names of the two building societies I mentioned; well, it has taken years and years to get them, and I am sure the best way for you to find out is to apply for one of the flats and all will be revealed.

I think I have dealt with the question of the architect inside or outside the industry. He is in many ways better outside, but it is very much a personal matter.

As to quantity surveyors, my experience has been that one can rarely achieve that intimacy with the building and the builder with the intermediary of this peculiar smoke-screen called a bill of quantities. I am sure it is a proper basis for competitive tenders. The only way we can work effectively is to get close to the builder's team.

I myself, working with these developers, have had both. They have built themselves and they are now not building themselves. When they built themselves they lost fortunes, probably because there was no real conflict and tension between the contractor and the architect. This tension is rather important. When I said, 'Take it down', they took it down. When I said, 'Put it up', it was put up. It was not good enough and the whole thing became difficult. In the end, although these practical difficulties were overcome, they were left with the problem of expansion, and the engagement of many other builders was the obvious solution. It has indirectly helped to spread ideas in some of these other builders' organisations.

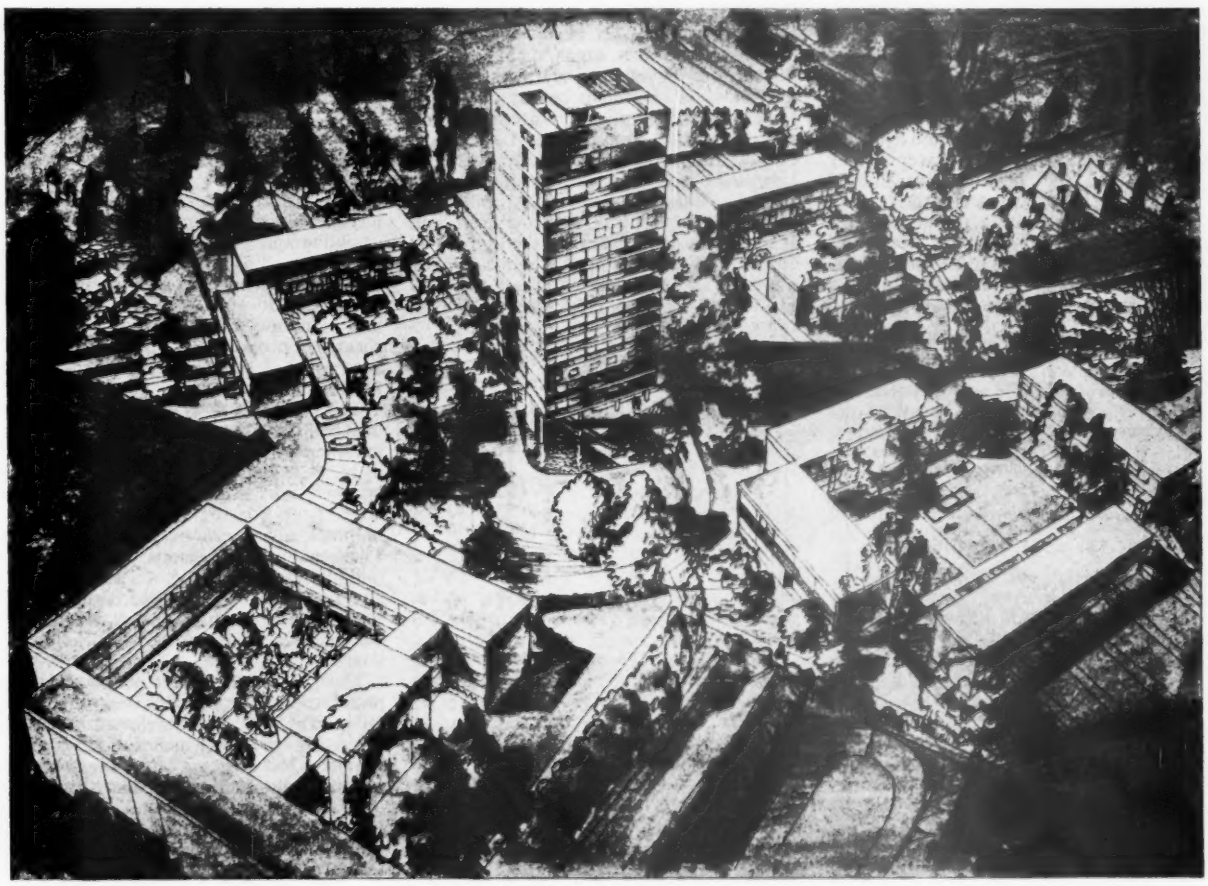
One should remember that the people who do spec. building more often than not do local authority housing as well. We are dealing with the same gang of chaps. The trouble is that when they put their spec. hat on, they seem to think they ought to make a lot of money. I suppose the answer is that they will continue until there is more competition.

The conclusion I come to is that the architect can be seriously involved, and I think every architect will have a different approach to the problem. The main thing is to assume that it is at least a respectable occupation. I used to be a bit ashamed, but I am not now, and I sit up here with relative calm. Until architects *collectively* recognise the problem we get nowhere.

I hope I have answered all the questions, but if I have dodged a lot of them it was very skilful of me!

The Chairman: I have now much pleasure in putting the vote of thanks to the meeting. Mr. Eric Lyons has shown his rare quality again in his reply, the quality of his paper, the humour and wit and philosophy, and I am sure it has been most thrilling.

'Hills Road development now starting in Cambridge with a fifteen-storey building in the centre of the site. This is in the middle of the town and two- or three-storey buildings are grouped round houses near the perimeter forming the enclosure. I show this to suggest that one can take spec. builders to some height. I believe myself that low-density development is strangling every town in the country and contaminating the country around every town, I do not think it would help even if every building was perfect.'



Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts.
Telephone: Garston 4040.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.
Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.
Telephone: Princes Risborough 101.

*The Director, The British Standards Institution, 2 Park Street, London, W.*1.
Telephone: Mayfair 9000.

*The Director, The Building Centre, 26 Store Street, London, W.C.*1.
Telephone: Museum 5400 (10 *lines*).

*The Director, The Scottish Building Centre, 425–7 Sauchiehall Street, Glasgow, C.*2.
Telephone: Douglas 0372.

Cheaper School Heating System. A special supplement to the Ministry of Education's Building Bulletin No. 3 ('Test with Oil-Fired Warm Air System') recently published by H.M. Stationery Office, price 9d., describes a system of school heating which has proved during a year's trial to be about 25 per cent cheaper to run than oil-fired radiator systems referred to in the original Bulletin. The test, carried out in a primary school in Hatfield, Herts, employed warm air circulated by electrically driven fans from thermostatically controlled cabinet heaters in each classroom.

The chief reason for the exceptionally economical running of the system was its 'high degree of intermittency', says the pamphlet. Though shut off completely during out-of-school hours and at week-ends, rooms could be warmed up rapidly before being reoccupied. Time and temperature controls ensured that in exceptionally cold weather the heating was started earlier than usual by an exterior thermostat.

In addition to heating the school, the system provided an adequate hot water service including a supply to each classroom. The system was operated in a normal way; no special precautions were taken to reduce air changes by restricting the opening of doors and windows.

The trial is said to have established the greater economy effected by the alliance of properly controlled oil-firing and warm air heating. But it does not follow, says the pamphlet, that oil should always be used in preference to coal. The relative advantages of these fuels should be carefully weighed in areas where coal is exceptionally cheap.

A CHANGE OF SIZE

Amendment to B.S. 1311 Sizes of Trade and Technical Literature. The publication of a B.S. amendment slip never sounds over exciting, and the amendment of this Standard to include two new sizes does not seem, at first glance, to be any exception. Nevertheless its implications are significant, and for some stimulating. Last year's Competition for Trade and Technical Literature, sponsored jointly by the R.I.B.A. and the Building Centre, did much to improve the quality of such literature and at the same time to simplify the number of different sizes of pamphlet and catalogue which we all daily receive through the post. This latest move can be seen as a forerunner of a movement to co-ordinate sizes not only of catalogues but of stationery, drawing paper, machines for reproducing and storage cabinets. The concept of an office in which the number of different sizes of document is reduced to a minimum will appeal to most people; it will certainly reduce time in filing and lead to greater efficiency. Anyone who has visited offices in Scandinavia or Germany will appreciate just how comprehensive is their use of a few standard sizes.

The 'A' Series of sizes. The two new sizes included in the B.S. are from the continental 'A' series and it is this range which can best form the basis for all our paper sizes. So far 26 countries have adopted this series, the notable exceptions being the United States and the British Commonwealth, although some Commonwealth countries are likely to change and India has already done so.

In the early 1920's agreement was reached in Germany on four series of sizes for paper and printed matter, known as the A, B, C, and D series. Later the D series was dropped, and by 1934 it was clear that the B series was required only for certain special purposes. The C series was retained for sizes of envelopes to contain A sizes of paper. The U.K. has used these sizes for certain purposes for some years, and while interest in them is still small, it is growing. Papermakers, paper merchants and printers are willing to provide paper, etc., in these sizes and there is evidence of an increasing demand from print buyers.

The 'basic size' is a rectangle having a surface area of one square metre on the basis of the two equations, $x : y = 1 : 2$ and $x \times y = 1$ (i.e. $x = 0{\cdot}841$, $y = 1{\cdot}189$ m), smaller sizes being obtained by halving the larger dimension and larger sizes by doubling the shorter one. The advantage of a series of sizes which retains the same proportion throughout is widely recognised, especially for work involving enlargement and reduction. Figure 1 shows the broadsheet size proposed, which is one metre in area and is designated A0, and the derivation of the smaller sizes.

The two main sizes (those now included in B.S. 1311) are A4, measuring 210 × 297 millimetres, approximately equivalent to 8¼ in. × 11¾ in. and falling conveniently between our normal foolscap folio and large post quarto; and A5, 148 × 210 millimetres—or exactly half the A4 size. Two smaller subdivisions, A6, 105 × 148 millimetres, and A7, 74 × 105 millimetres, give us respectively the international post-card format, and a small sheet well adapted for business cards, tickets, and labels.

The 'A' formats are *trimmed* sizes and therefore exact. Stubs or tear-off books, index tabs, etc., are always additional to the A dimensions, which are those of the ultimate 'end product' for filing or other purposes. Printers usually buy their paper in B or C sizes, and this allows for trim, especially when printing bled off half-tones, etc. Standard envelopes for use with these 'A' formats would be in B and C

A series			Existing sizes		
			Correspondence	Trade literature	Drawing papers
	millimetres	inches (approx.)	inches	inches	inches
A0	841 × 1189	33⅛ × 46¾			30 × 53 30 × 40
A1	594 × 841	23⅜ × 33⅛			27 × 40 15 × 40
A2	420 × 594	16½ × 23⅜			22 × 30 20 × 30
A3	297 × 420	11¾ × 16½			20 × 27 15 × 20
A4	210 × 297	8¼ × 11¾	8 × 13 (foolscap)	8½ × 11	10 × 15 8 × 10
A5	148 × 210	5⅞ × 8¼	8 × 10 (quarto)	5½ × 8½	
A6	105 × 148	4⅛ × 5⅞	6½ × 8 (large post sixmo)		
A7	74 × 105	2⅞ × 4⅛	3½ × 5½ (postcard)		
A8	52 × 74	2 × 2⅞			
A9	37 × 52	1½ × 2			
A10	26 × 37	1 × 1½			

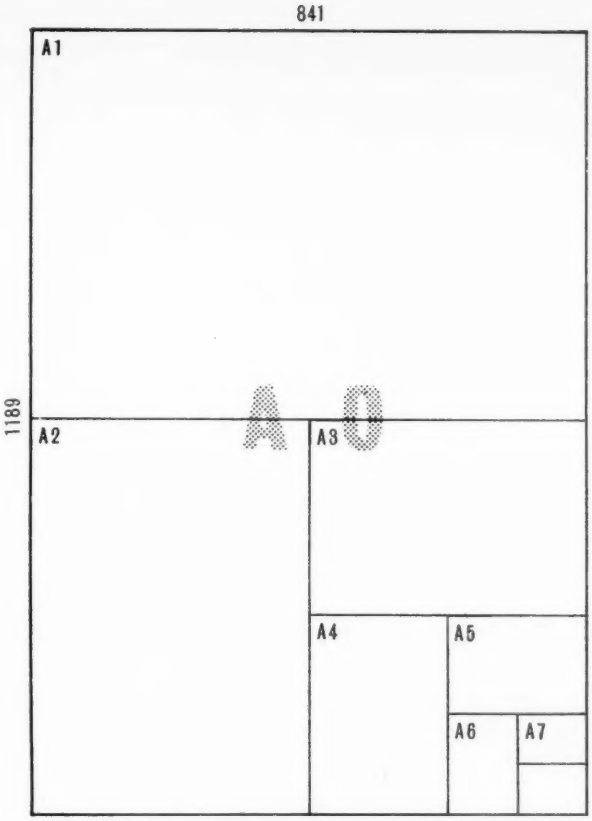


Fig. 1

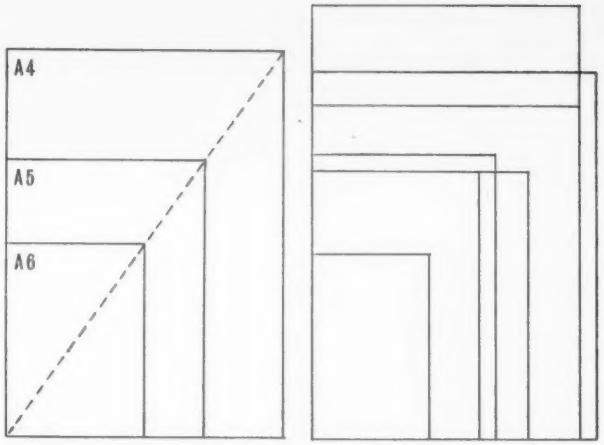


Fig. 2

1. The breakdown of the basic sheet AO, 841 × 1189 mm., to the smallest size normally used, A7, 74 × 105 mm. Scale 1: 10

2. The relationship of formats A4 and A5, and the international postcard, A6, to the heterogeneous unrelated sizes of existing stationery. Scale: 1: 5

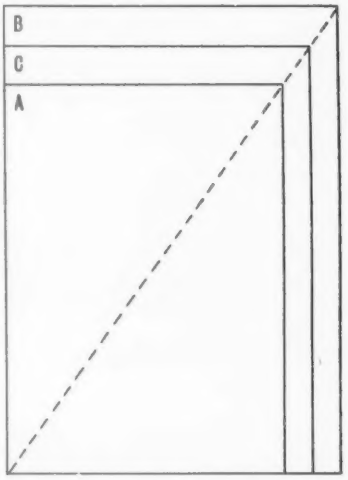


Fig. 3

3. The A4 sheet may be folded in four to go in standard C6 envelopes, or into three to go in the long envelope, DL, which also takes travel literature, etc. Scale: 1: 5

4. The relationship of the trimmed 'A' sizes to the untrimmed, and envelope sizes, 'B' and 'C'.

Diagrams reproduced by kind permission of Mr. Alan Dodson.

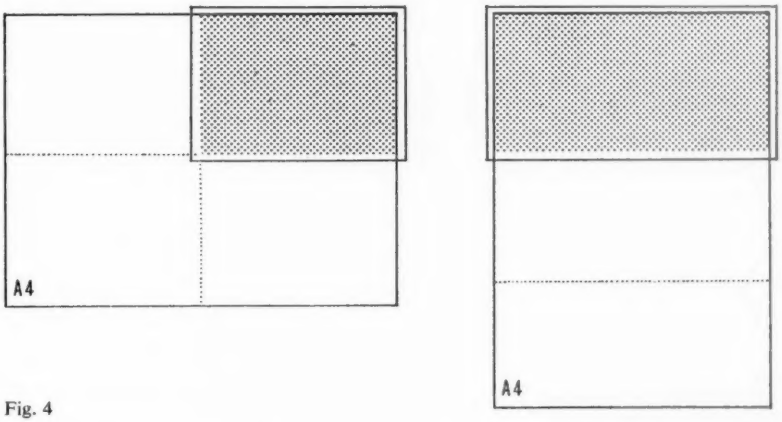
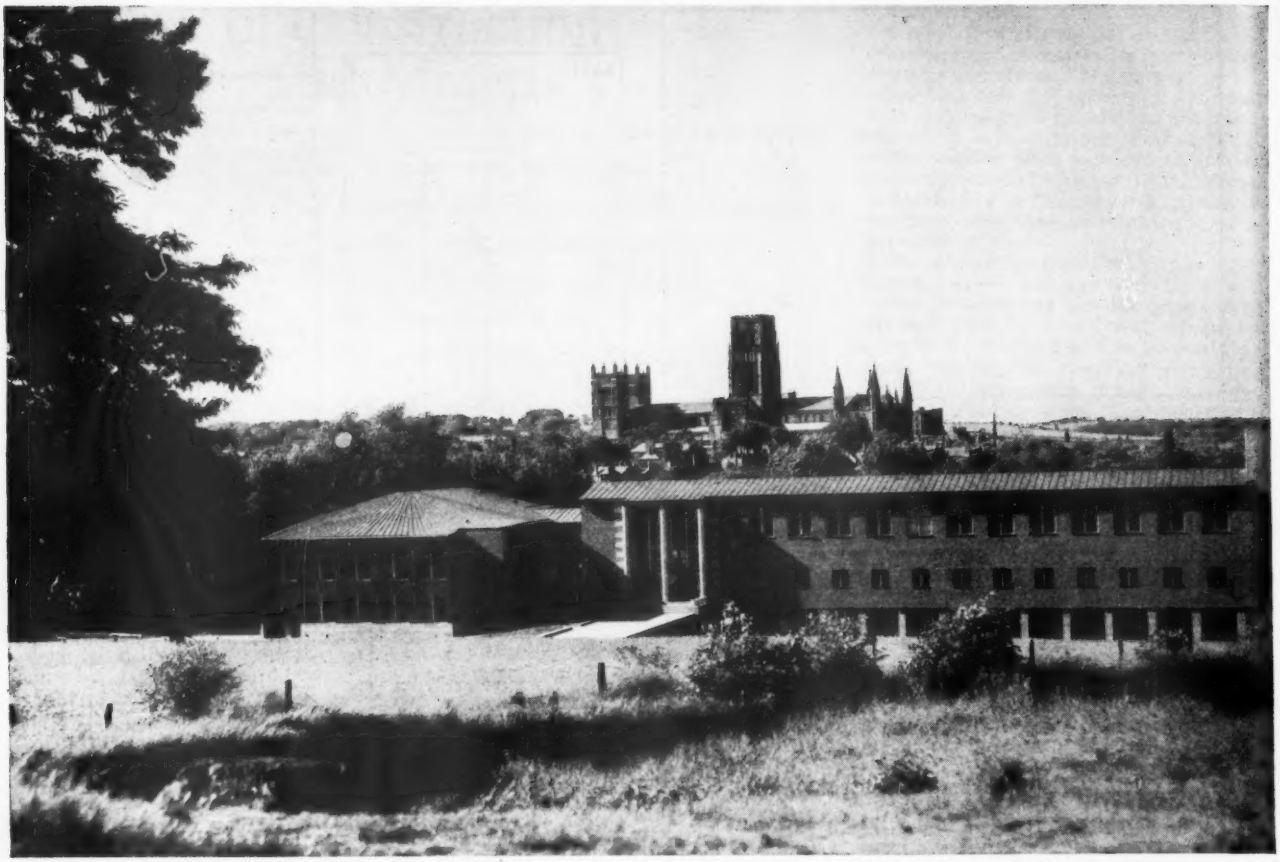


Fig. 4

sizes, and if international agreement is reached on this also it would mean a reduction from 40 B.S. sizes used at present, to ten.

The transition. Naturally there will be some who oppose the introduction of new standards though the process of changing over probably presents fewer difficulties than one might first imagine. While manufacturers would henceforth make only equipment to take the standard sizes, existing foolscap files and cabinets would continue to be of service and there would be no trouble in printing standard quarto A4 on office lithographic and duplicating machines. In the sphere of letterpress printing existing platen presses would accommodate the new sizes as well as those used at present, and in large scale letterpress and litho there are plenty of machines in use, especially those imported from countries already using the A series, which would readily take the new formats. As for B.S. 1311, this standard for some time to come will include the original sizes of 11 in. × 8½ in., 8½ in. × 5½ in. as well as the new A series, but the advantages of the new sizes are likely to far outweigh the old. In the initial stages there may well be some problems as far as supplies are concerned, but it is hoped that they will be of short duration.

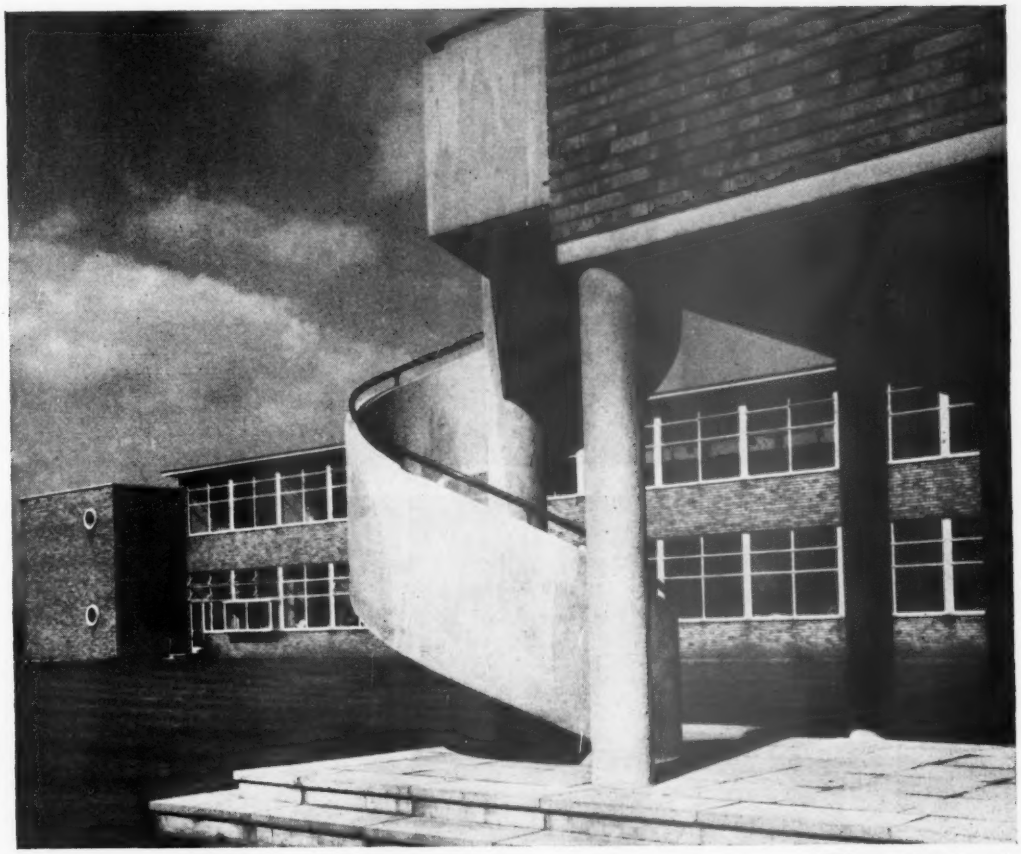
Figure 3 shows the A series and also some of the vast range of sizes in use at the present time for various purposes. In the February issue of B.S.I. NEWS, there is a commentary, 'A change of size', in which it is explained that the British Standards Institution is initiating this month a progressive changeover to international sizes in the papers it uses for all purposes—correspondence, duplication and printing. No doubt this will make the B.S.I. one of the first offices in the country to make this decision. It is to be hoped that all major institutions and Government departments will follow its lead.



West Building, Durham Colleges. Architect: Professor J. S. Allen [*F*]. The building was designed to avoid obscuring Durham Cathedral. The left wing encloses the Appleby Lecture Theatre

Post-War Architecture in the area of the Northern Architectural Association

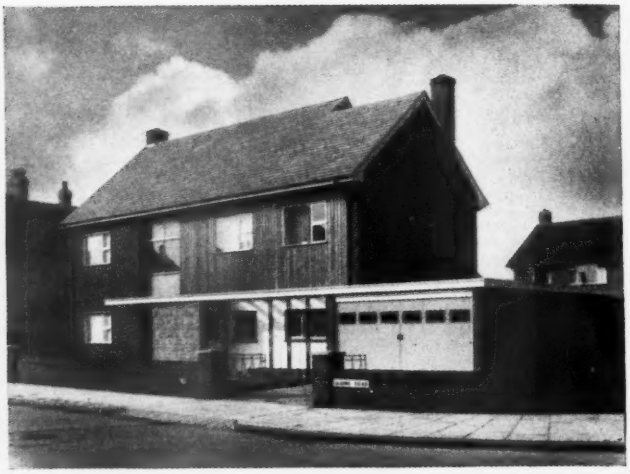
St. Francis' Church, Heaton, Newcastle upon Tyne. Architects: W. B. Edwards and Partners [*F*/*A*]



Philipson and Son, Newcastle

Johnston Grammar Technical School, Durham. Architects: Cordingley and McIntyre [*FF*], in collaboration with G. R. Clayton [*F*], Architect to the Durham County Council

Institute of Pathology and Regional Blood Transfusion Centre, Newcastle General Hospital, view from the east. Architects: Scherrer and Hicks [*FF*], in collaboration with P. H. Knighton, M.B.E. [*A*], Architect to the Regional Hospital Board



Top left: Cottage at Wetherall. Architects: Johnston and Wright [*A/L*]
Above left: Coal Utilisation Centre, Newcastle. Architects: Spence and Price [*AA*]

Top right: House at Whitley Bay. Architects: Waring and Netts [*AA*]
Above right: House at Darras Hall, Ponteland. Architects: The Design Partnership, Newcastle [*F/A*]

"Architecture and You"

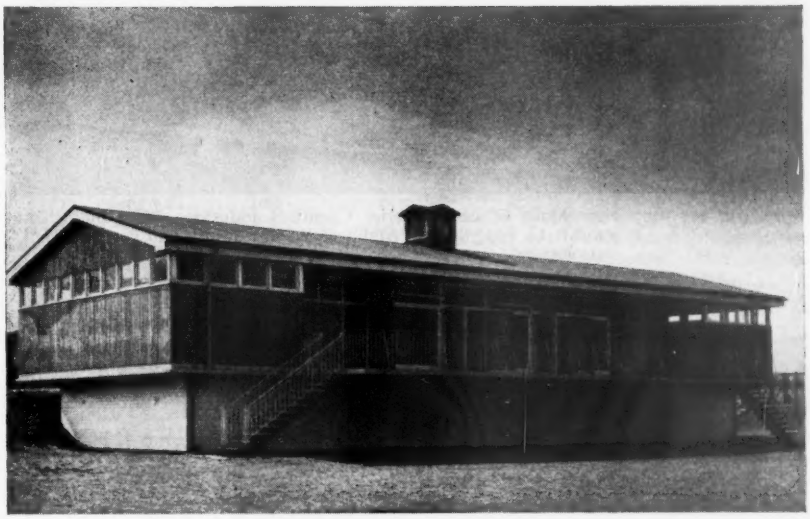
N.A.A. Centenary Exhibition

WITH THE HELP of the Civic Trust, the Northern Architectural Association is holding a special exhibition to commemorate its Centenary which is at present open to the public. The Exhibition is being staged at the Laing Art Gallery by kind permission of the Art Gallery and Museum Committee of the City (Curator B. C. Stevenson), and will be opened by the Rt. Hon. Lord Strang, G.C.B., G.C.M.G., M.B.E., Chairman of the National Parks Commission, at 3.30p.m. on Tuesday 13 May. He will also unveil a circular bronze plaque on the façade of the N.A.A. headquarters later in the afternoon. The plaque has been designed by Dudley L. Couves [*F*]—and incorporates the county badges of Northumberland, Durham and Cumberland.

The theme of the Exhibition is allied to that of the Conference and consists in the main of a review of some of the most outstanding examples of architecture and landscape design in Northumberland, Durham and Cumberland, since the war. Among the more special exhibits are sections on the New Towns of the north, the atomic development in Cumberland, the Forestry Commission's new villages on the border and the proposed civic centre development of Newcastle and Carlisle. Some work outside the area but designed in the offices of members of the Northern Architectural Association is also on view.

The Gallery is open from 10 a.m. to 6 p.m. weekdays, and on Sundays from 3 p.m. to 5 p.m. Admission to the Gallery and Exhibition is free. A catalogue will be available.

The Laing Art Gallery is situated opposite the Association's Rooms in Higham Place. Visitors on foot will find the Gallery behind the Central Library in New Bridge Street and about seven minutes' walk from the Old Assembly Rooms. Visitors with cars are advised to turn right, into Saville Row, half-way up Northumberland Street, where they will find a car park. From here they can walk down to the Gallery (1 min.).

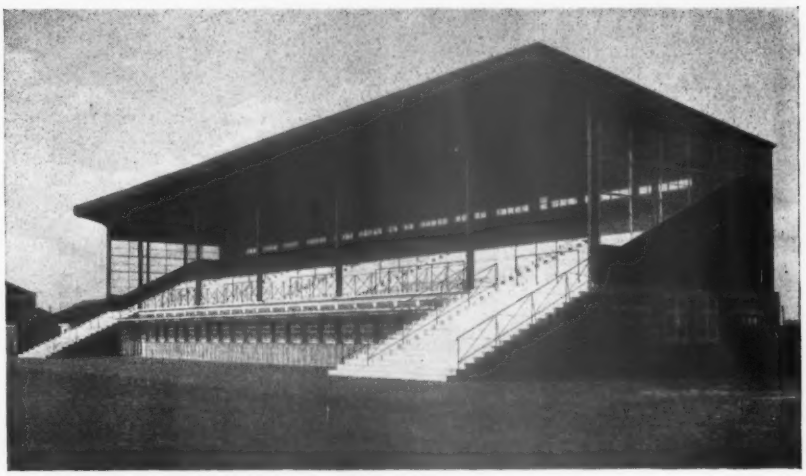


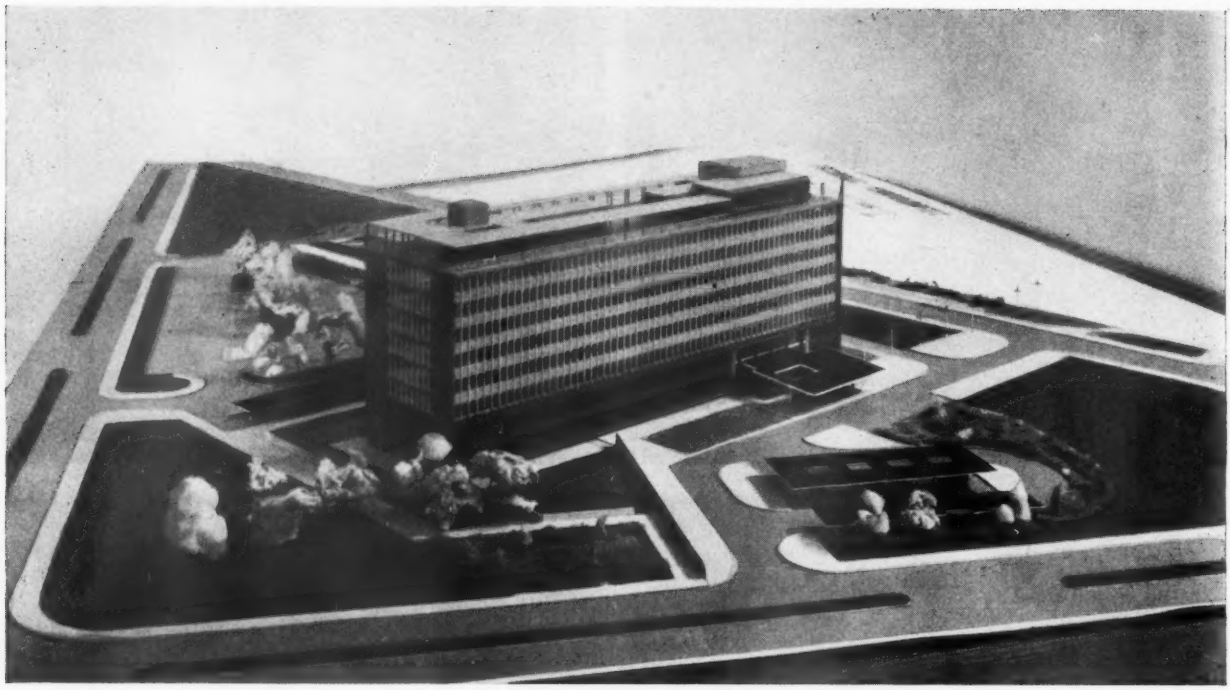
Top pictures: Communal Canteen at the West Auckland Trading Estate for the North Eastern Trading Estates Ltd., 1949. Architects: Napper and Taylor (J. H. Napper [*F*])
Centre pictures: Sports Pavilion for Imperial Chemical Industries Ltd., Prudhoe, and Scorer's Box. Architects: Turley and Williamson [*AA*]
Below: Race Course Grandstand, Stockton-on-Tees. Architects: Richardson and Shaw [*L/A*]

Planning Outlook. A special number of PLANNING OUTLOOK, the journal of the Department of Town and Country Planning, King's College, University of Durham, is being issued in connection with the British Architects' Conference and the Centenary of the N.A.A.

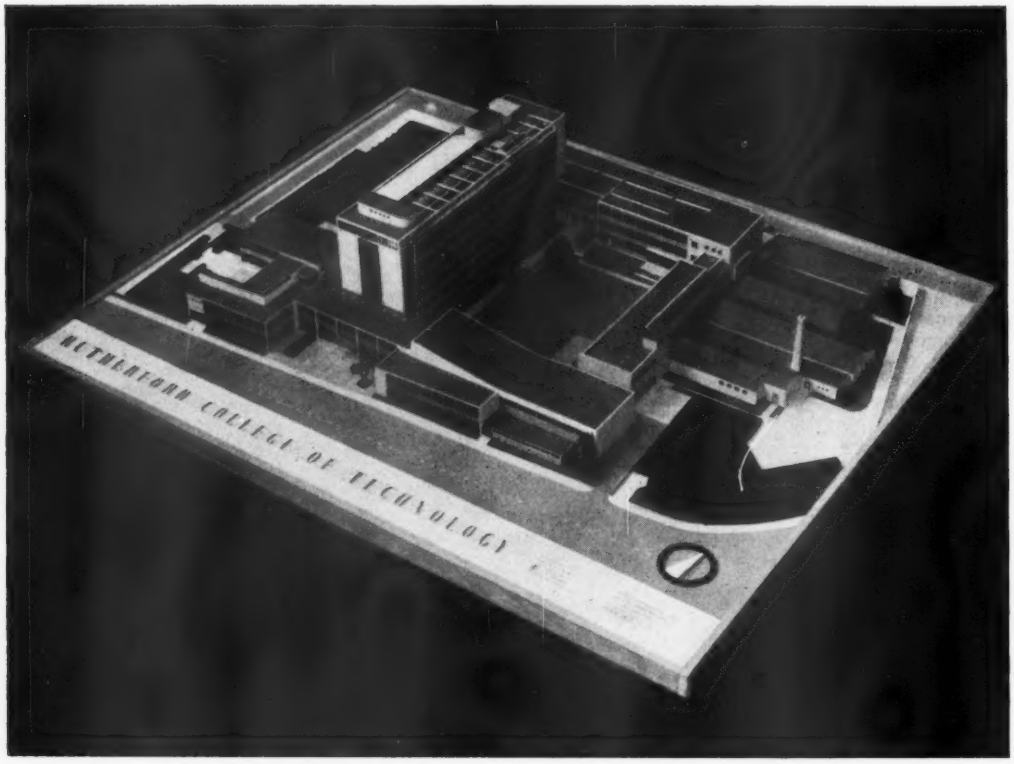
All the articles are being contributed by members of the staff of the University, and include the following:—

New Towns as Socio-Scientific Experiments, by Dr. V. G. J. Sheddick; *Landscape Design in Towns*, by Mr. B. Hackett; *By-Passing a Village—Old Shotton, Co. Durham*, by Mr. J. H. Napper; *Some Thoughts on the Preservation of Buildings*, by Mr. H. B. Allsopp; *Land Use and Local Traffic in the Central Area*, by Mr. A. C. Sutherland. PLANNING OUTLOOK is normally published twice yearly, but this special number may be obtained direct from the publishers, Oxford University Press, or at the Conference.





New Main Offices, Imperial Chemical Industries Ltd., Billingham (model). G. Forsyth, Staff Architect. W. B. Edwards and Partners [*F/A*], consultants



Rutherford College of Technology. George Kenyon [*A*], City Architect, Newcastle upon Tyne. The model shows the whole scheme. The 7-storey block (third stage) is due for completion this year, while the fourth stage (in foreground) is now being modified somewhat to accord with the requirements of designation as the College of Advanced Technology for the North-East.

Practice Notes

Edited by Charles Woodward [*A*]

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Petrol Stations on New Motorways and other Roads. Advice to Planning Authorities on Siting. Advice on the siting of petrol stations on trunk and other roads and along the proposed new motorways has been sent to local planning authorities by the Ministry of Housing and Local Government.

The main questions, says the circular, are:

(1) What effect would the proposed station have on traffic flow and road safety?

(2) What would be its effect on amenity?

(3) Is the proposal at variance with the development plan?

(4) Are the location, layout and design of the station satisfactory? Other points mentioned in the notes appended to the circular are:—

Trunk Roads. On fast open stretches all petrol stations are open to objection. On new by-passes and other new roads, stations at 12-mile intervals should normally be enough.

Other Roads. The same considerations as for trunk roads will apply, but the fringe of a built-up area may well be the least objectionable place for petrol stations.

Advice is given on siting and layout of sites.

A control based entirely on considerations of need, says the Minister, would go beyond the scope of planning. But where the planning aspects are arguable, traffic need is also relevant. 'In this context', says the circular, 'the Minister would not regard the absence of a pump supplying a particular brand of petrol as constituting of itself a need for another station.'

Motorways to be Built under the Special Roads Act, 1949. Sites for 'service areas' for refuelling and refreshment will be available for leasing to private operators. On the first section of the London–Yorkshire motorway these areas are planned at approximately 12-mile intervals on each side of the road with access slipways.

No other frontage development will be permitted.

Motorways will be landscaped. Apart from authorised traffic signs the only advertisements will be within the service areas informing customers what services can be obtained there. On land not acquired for these roads, but adjacent to them, local planning authorities are urged to prevent advertisements which offend against amenity or endanger traffic.

The Circular is No. 25/58 dated 1 April and is addressed to local planning authorities in England and Wales. It is obtainable at H.M.S.O. price 4*d*. net.

R.I.B.A. FORM OF CONTRACT. Clause 21 (d). Under the R.I.B.A. Form of Contract one-half of the retention fund is released on practical completion of the works and the other half is included in the final certificate. The issue of the final certificate is dependent on defects having been made good after the expiration of the Defects Liability Period and to the final account being ready for certification by the architect. Such certification is often delayed long beyond the making good of defects with the result that nominated sub-contractors have to wait for payment of the balance of their accounts though their work may have been completed in an early period of the contract.

To meet this situation Clause 21 (*d*) enables the architect to secure final payment to any nominated sub-contractor before final payment is due to the main contractor. The conditions under which such payment would be certified are that the nominated sub-contractor has satisfactorily indemnified the main contractor against any latent defects. The architect may then include such final payment in a certificate to the main contractor, and he must pay the nominated sub-contractor less only a cash discount of 2½ per cent. The limit of the retention fund is then reduced in proportion to the amount so certified and the main contractor is relieved from all liability except for any latent defects.

Though the procedure under this clause is a matter for the architect's discretion, there are, no doubt, many cases in which it would be proper to adopt the procedure, as it does not render the employer in any way liable to any nominated sub-contractor.

ROYAL INSTITUTION OF CHARTERED SURVEYORS. Provision of Telephones on Building Sites. In the Royal Institution's JOURNAL for March, attention is called to clause 7 (*e*) of Section II of the Standard Method of Measurement which is worded as follows: 'Telephones to be provided. Telephones other than those for the use of the contractor to be the subject of a provisional sum.' While there is a clear liability on the contractor to afford every facility to the clerk of works in accordance with Clause 8 of the R.I.B.A. Form of Contract, it is necessary for the provision and use of telephone facilities to be covered by a clearly-worded item in the bills of quantities.

While it is not appropriate to suggest a standard form of item, it is the view of the Sub-Committee of the Quantity Surveyors Committee that there are two methods of dealing with this matter: (1) the whole of the cost of the telephone for the clerk of works, i.e. installation, rent and calls, should be the subject of a provisional sum; or alternatively (2) the installation and rent of the telephone should be included in the bills of quantities as an item to be priced by the contractor and the cost of the calls should be the subject of a provisional sum.

London County Council. Form of Agreement for use with Private Architects. In the Royal Institution's JOURNAL for April it is stated that the Quantity Surveyors Committee have received and approved the revised Form of Agreement, 'P.A.' for use between the London County Council and firms of quantity surveyors where private firms of architects are appointed.

Architects and Quantity Surveyors. Sharing of Fees. A statement was issued in 1947 by the Architects Registration Council concerning the sharing of fees by architects and quantity surveyors. The statement deprecates such a practice and the March issue of the Royal Institution's JOURNAL reproduces the statement giving the reasons why Codes of Professional Conduct would be infringed if such sharing of fees takes place between an architect and quantity surveyor.

ARCHITECTS REGISTRATION COUNCIL. ADVERTISING. Articles in the Lay Press about Architects and their work. During the past year the Professional Purposes Committee have given extensive consideration to the question of articles which appear in the lay Press about architects and their work.

Representations have been made to the Committee that it is impracticable to carry out the Council's recommendation that architects should insist on seeing a proof of any article describing an architect's work or practice before publication. It will be remembered that this recommendation was approved by the Council at their meeting on 15 June 1956. It has been pointed out to the Committee that when a building or an architect became of news-value to the Press, particularly to a daily newspaper, the architect concerned was rarely in a position to impose any condition on, or otherwise to control, what was published, or the manner of its presentation. Moreover, it has been urged, the profession for many years have been collectively striving to arouse national interest in, and appreciation of, their work and standing, and if they were now to attempt to censor editors in what their newspapers might publish about them, the little ground they have gained in this field might be lost and the Press discouraged to give active and intelligent attention to architecture.

On further reflection, and in the light of these representations, the Committee have come to the conclusion that, at any rate as far as the lay Press is concerned, it might not be practicable for architects effectively to impose such a condition on editors of newspapers, or reasonable to expect architects to have their names omitted from all publicity given to projects of the type under discussion.

The Committee have, therefore, directed the Registrar to inform those architects concerned of the views expressed in the above paragraph, but to emphasise, nevertheless, that each case of alleged advertising is considered in the lights of its own particular circumstances, and that in doing so the Committee are guided by the principle that the onus must always remain on the architect to ensure by all practicable means that he does not receive publicity which is offensive to the ethical standards of the profession.

Christmas Presents. With particular reference to Christmas presents from con-

tractors, manufacturers, etc., the Committee have instructed the Registrar to reply that this was not a question on which a clear line of demarcation could be drawn between what could be and what could not be accepted, and that it must be left to the good sense of individuals, the guiding principle being the fundamental one—that the acceptance of any gift or token must not denote, or raise the suspicion, that it would affect the architect's completely independent judgement.

PROFESSIONAL INDEMNITY INSURANCE. In recent years there have been increases in the number of claims against architects and in the amounts involved. It is true that frequently the allegations of neglect, omission or error prove to be unfounded, but legal expenses —often very substantial—must be incurred in refuting the charges made. Costs awarded in the Courts against an unsuccessful claimant may in fact be irrecoverable.

As is well known, the Architects' Benevolent Society, through their insurance agency, have professional indemnity policies, and a special scheme has been devised by Lloyd's Underwriters which would provide full cover. In addition to the basic indemnity in respect of all sums for which the architect may become legally liable to pay as a result of neglect, omission or error, three extensions are included as follows:

(1) All costs of litigation incurred in recovering or attempting to recover professional fees due to the architect, based on a definite contract for the payment of fees, and is not merely a claim on *quantum meruit* except as allowed under the R.I.B.A. Scale of Charges.

(2) All sums for which the architect shall become legally liable to pay in direct consequence of libel or slander (excluding matter contained in a journal or in any communication or contribution to the Press).

(3) All costs of litigation incurred in prosecuting any claim for infringment of copyright in architectural design, drawing or plan. Recently some insurers have found it necessary to endorse their policies with a dry rot or beetle exclusion clause. The proposed policy is completely unrestricted in this respect.

Indemnity up to £2,500 would be available to architects at an annual premium of £10, where not more than two partners and/or qualified assistants are engaged in the practice. An annual premium of £15 would normally be required for indemnity up to £5,000 where the number of partners and/or qualified assistants does not exceed five. These rates may be modified where there are unusual features affecting the risk.

While these facilities are not in any way dependent on a minimum number of entrants coming forward, it will be necessary to take all practical steps to bring the scheme before architects at present uninsured. For this reason it is thought desirable to draw the attention of members to the scheme.

Any further information can be obtained from the A.B.S. Insurance Agency Limited, 66 Portland Place, London, W.1.

Correspondence

AESTHETIC CONTROL

The Editor, R.I.B.A. Journal

DEAR SIR,—Mr. Moro asks what is the case for aesthetic control. Surely it is simply this, that control under the planning Acts is the only sanction we have against bad design. A comparatively small proportion of houses built in this country are designed by architects. If aesthetic control is abandoned, the gates will be opened even wider than they are now to a flood of illiterate building.

Furthermore, architects should be concerned with the creation of streets and cities, not merely with individual buildings of merit. Without some guiding control these are unlikely to be achieved, any more than the ablest musician can perform a symphony without a conductor. Admittedly control may be criticised as being ineffective and sometimes of stopping what is good. This is largely due to local authorities being apathetic or badly advised. Instead of decrying architectural control, ought we not to regard it as one of the most responsible tasks that an architect can be called on to do? There is otherwise a grave danger that the whole matter may fall into the wrong hands.

I append as a footnote an example of the work which is constantly being done by the authority for whom I work. Without control nothing could have stopped the erection of the two detached buildings in a particularly charming country town. The lower drawing shows the building which was approved and erected after negotiations with the applicants. Is this, or is this not, worth while?

Yours faithfully,

E. W. BERRIDGE [*A*]

DEAR SIR,—The following is an extract from a letter appearing in THE BUILDER of 21 March 1958.

'I have, after reading the leaders in your last few issues, hopefully looked forward to seeing shoals of letters appearing in your correspondence columns from important members of our profession "kicking against the pricks". None appeared. . . .'

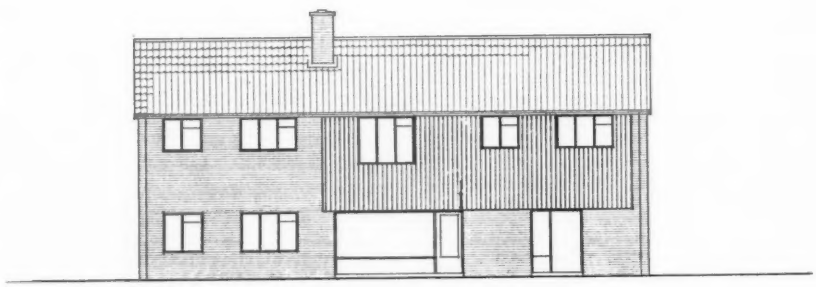
It is to be hoped that Mr. Peter Moro's letter in your March issue, under the heading 'Aesthetic Control', will not suffer a similar fate.

If 'aesthetic control' refers to the administration of the Town and Country Planning Act, 1947, whereby an architect is held up for months, and even years, awaiting a decision as to his design, in the meantime journeying, hat in hand, from city council to county council, perhaps to the Fine Art Commission and finally to the Minister, then this control is certainly intolerable.

It appears that the Act intended a prompt decision since it gave a statutory period of

AS SUBMITTED

SCALE OF FEET.



AS PERMITTED

two months to enable a council to issue a determination, whereas in practice invariably for some time an extension is required every two months, the alternative being an appeal to the Minister with further delays in the appointment of an inspector, the issue of his determination, and costs to the prospective building owner.

A correspondent in THE TIMES of 24 March, referring to planning delays, states *inter alia* that as at that date he is still awaiting the result of a public inquiry held in November last.

I suggest that it is now time for surviving private practitioners to meet to compare notes and decide on the action to be taken.

Yours faithfully,

F. MILTON CASHMORE [*F*]

SPUR

Sir,—Your readers may have seen the announcement some weeks ago of the birth, to the Housing Centre, of the Society for the Promotion of Urban Renewal.

SPUR sees as its first task a review and appraisal of recent work in this and other countries in the field of urban renewal. For convenience it has divided this huge field into six subdivisions and has a group at work on each:

City Structure
Housing Patterns and Densities
Social Structure and Employment
Transport and Utilities
Economies of Urban Renewal
Legislation and Administration.

In addition, a group has been formed to assist in the organisation and co-ordination of 'live' planning and housing programmes in schools of architecture and planning.

SPUR is above all concerned at this stage not to do work that has been done already, but in the first place to act, as its parent has done for so many years, as a central clearing-house for the collection and publication of ideas and research on contemporary ways of living in cities. But if we are later to work, as we mean to do, towards a new pattern of town life that will be as universally acceptable as the old ones were in their day, we must throw our net as widely as we can. For this reason I write to invite any individual or group which has done or is doing work in our field to get in touch with the Secretary of the Housing Centre, 13 Suffolk Street, London, S.W.1.

Yours faithfully,

LIONEL BRETT [*F*]
Chairman, S.P.U.R.

SUB-CONTRACTORS' PAYMENTS

Dear Sir,—It is evident from discussing various matters with sub-contractors that there is a general feeling that architects are often quite lax in one very important respect. Namely in 'payment to sub-contractors'.

It seems that most architects fully appreciate the services conferred by sub-contractors in helping to achieve a successful contract, but they do not always recognise the service to which the sub-contractor is entitled from the architect.

In this respect the architect should make it his responsibility:

(1) To consider where necessary the release of retention.

(2) To notify sub-contractors of the financial position concerning payments on account made on their behalf.

Regarding the first point, it quite often happens that when a long-term contract is being dealt with, some sub-contractors' work is completed before the main contract has ended. In the circumstances it is right and proper for the architect to consider either reducing the retention considerably, or in some instances certifying the particular firm's final account. The R.I.B.A. Form of Contract in Clause 21 (*d*) provides for this procedure.

Of course, the architect must be both judge and jury in deciding the release of premature retention, and, I should add, it is up to the sub-contractors to make the initial approach, which many fail to do.

Reginald H. Gallannaugh, L.R.I.B.A.
CHARTERED ARCHITECT
54, Queen Anne Street,
London, W.1
Telephone Welbeck 5484

CONTRACT

To: Main Contractor:

CERTIFICATE NO. ..... has just been issued to the Main Contractor, and included in this Certificate is £..... Gross/Net allowed for yourselves.

Date:

SEND TO QUANTITY SURVEYOR

MESSRS. .....

CONTRACT

We have received from the main Contractor £..... as certified in the Certificate No. ..... issued by the Architect, Reginald H. Gallannaugh, L.R.I.B.A.

Failure to submit this may result in future payments being delayed.

SIGNED .....

FIRM .....

Date .....

On the second point, a situation has arisen since the Cheques Act, 1957, whereby quantity surveyors are finding difficulty in ascertaining whether or not financial liabilities to sub-contractors have been discharged by the main contractor, now that receipts are no longer available. And I have been surprised to learn how often architects do not notify sub-contractors that payments on account have been certified on their behalf and stating the amount.

There is a simple remedy and the one that I employ is to issue a standard form [reproduced on this page] to all sub-contractors when a certificate is forwarded to the main contractor.

One word of advice to sub-contractors. If the architect does take pains to keep you informed of the financial position, you should co-operate in full by carrying out instructions. In so doing you will not only show your appreciation to the architect, but will also avoid the delays and misunderstandings which prevent your receiving prompt payments.

To architects I would suggest that you should employ a similar system to mine, as

it greatly reduces the queries and correspondence, and personally I feel it is not enough to rely upon quantity surveyors notifying sub-contractors, as it is the architect's responsibility to deal with the general administration of any contract.

REGINALD H. GALLANNAUGH [*L*]

ARCHITECTURE AND THE OTHER ARTS

DEAR SIR,—If we accept Norbert Lynton's contention* that 'any division between the arts is essentially artificial' we are faced by two main alternatives. We can say that since all these arts are saying the same things, architecture can do all the talking —like so much of the best architecture of our times.

Or we can consider architecture artistically as a more or less neutral element which requires painting and sculpture to animate it. That this is Lynton's view is shown by his sympathy for Le Brun whose painted ceiling is reduced considerably in importance by the mirrors of the Galerie des Glaces at Versailles.

This view seems to be based on the idea that painting and sculpture are inherently 'good' things and that they make a good building even better when in complete harmony with it. The richness of effect of one art form contrasted with another is gained at some expense in the strength of the architectural feeling of the building.

Lynton goes on to talk of 'the bridging of the gap that lies between architects and artists'. This gap is not, I suggest, in the feeling for visual aspects of art but in the approach to them. The architect has to consider, at every stage in design, each thing in relation to everything else. He has to compromise between competing requirements. As Lynton says, 'Artists . . . tend to be impatient of the factors that limit the architect's possibilities'. In fact, they do not consider compromise as part of the architect's discipline in design, but only an excuse for bad work. Therefore, I would say that Reg Butler is quite right to 'put the responsibility fairly and squarely on the shoulders of the architect' because he is the only artist who is trained to think of his work in relation to the other things in and around it.

Yours faithfully,

PETER SAVAGE [*A*]

* Correspondence JOURNAL, April 1958, p. 203.

S. R. P.

Book Reviews

Kinos, by *Paul Bode*. 11¾ in. 287 pp. incl. illus. + 4 coloured pls. Munich: G. Callwey, 1957. *DM* 54.

To the English reader, it is rather surprising to see a book on the cinema being published when cinemas are not only not being built, but are actually being closed in great numbers. Reading through it one becomes perhaps less surprised. The cinema, like many other matters, is taken much more seriously in Germany than here, both by the public and by the owners, and this is perhaps borne out by the name 'Lichtspielhaus'—light play-house.

This magnificently presented book is more than a textbook on cinema building, and is of a kind unknown in this country. For example, it begins with a history of the film, quoting early experiments with moving pictures by Ptolomaeus in A.D. 150, while it also analyses town planning requirements for the siting of cinemas in relation to traffic density of population and potential economy.

One wonders how many directors of cinema 'circuits' in this country know of these analyses. It is certain that the average manager in Britain is quite unaware of the contention of this book that the production of a film does not end at the film studios, that it is his task to create a setting for the showing of a 'light play' and that he can contribute a great deal to the atmosphere, so that going to see a film becomes a worthwhile outing, an experience very different from watching T.V.! The average British cinema manager clutters up his theatre, its foyer and façades with gaudy publicity, which may be a reason why in this country the cinema has not been allowed to find a good architectural form of its own, derived from its particular needs, visual, optical, acoustic and of course social. So we find that only two British examples were found worthy of inclusion and one of these is the National Film Theatre in model form.

Thirty-two cinemas have been illustrated from various countries ranging from Japan to Sweden and, although many of them are still somewhat garish, there is a clearly marked tendency towards greater serenity and dignity, particularly in the approaches and foyers, and externally towards an effort to obtain greater harmony with the surroundings. Internally there is evidence of allowing greater audience participation by extending screens from wall to wall and floating these freely in space.

This book, however, offers a great deal more than pictures and history. Every problem likely to occur in the planning of a cinema is dealt with: regulations, audience circulation, screen construction, wiring diagrams, acoustic detailing, even stair treads and coat hooks, technical equipment, lighting, lettering and poster fixing, all with clear working drawings or delightfully sketched diagrams.

There are 290 pages in excellent typography, and to derive some benefit from these should be possible to the reader who commands only a smattering of German.

The book should be read not only by the architect, but also by potential clients, to show the vital contribution which the architect can make to the success of a cinema.

H. WERNER ROSENTHAL [*F*]

Building Cost Manual. 11½ in. ix + 367 pp. incl. illus. New York: John Wiley and Sons; London: Chapman and Hall. 1957. £6.

This book was prepared under the direction of a Joint Committee on Building Costs of the Chicago Chapter of the American Institute of Architects and the Appraisers' Division of the Chicago Real Estate Board. It is thus the product of a group of architects and valuers designed to satisfy their common need for a means of predicting the cost of putting up any kind of new building or replacing an existing property.

The basis of the book is an analysis of the specification and final account cost of 500 buildings completed between 1953 and 1955 in various parts of North America. These have been divided into 150 types classified according to use, number of storeys, constructional system (frame, load-bearing wall, etc.), and overall size. Each type is illustrated by photographs of the outside (no drawings), specification and unit costs of a so-called 'Base Building'. This is generally a composite of several closely comparable buildings, but occasionally a single example where particularly big or highly specialised. Costs are given in United States dollars per sq. ft. and cu. ft. for structure and finishes, heating and ventilating plant, plumbing, and electrical installation. Percentage distribution of cost over these four categories is also shown.

The costs are reduced to the Chicago average for 1953–55, and factors are given for conversion to costs ruling in this period in various parts of the United States. They exclude the cost of land, demolition, abnormal siteworks, landscaping and fees. Photographs of old buildings occupy several pages at the end of the book—each building type with its appropriate classification as an aid to calculating replacement costs for valuation purposes.

As an aid to cost planning, this work has little to offer. Although the separation of structure and services is useful, the system as a whole improves very little on the time-honoured method of sticking a pin in a list of cube rates and hoping for the best. The fact that costs are given in dollars and the pitfalls of direct comparison between the economies of Britain and America must further deter the potential user in this country.

The book does have value, however, as a source of material on cost distribution between structure and services, and the relation between cube and area rates in different types of building. And as an objective and uncritical photographic survey of bread-and-butter building in America—good and bad—it should not be missed.

A. G. DERBYSHIRE [*A*]

The New Small Garden, by *Lady Allen of Hurtwood* and *Susan Jellicoe*. 8¾ in. 128 pp. incl. illus. Architectural Press. 1956. 15*s*.

This is a book of ideas for those who want to design and make their own gardens and is presented in the form of 29 existing gardens which, with the exception of three, have been made by their owners. There is a plan of each example and since the book is intended for amateurs, the reading of these plans has been made easier by photographs taken at various angles. The choice of gardens has depended on an acceptance of the conditions imposed by the site and a successful adaptation of natural resources, rather than camouflage or preconceived pattern. The accent throughout is on naturalness, rather than formality. Other factors which have attracted the authors are the problems of awkward sites, a minimum of upkeep and, what would seem to most people, impossible conditions. The majority, not surprisingly, have been chosen from London examples, and in each case the difficulties have been outlined and a list of materials used and plants successfully grown has been added. It may be significant that from the four examples from housing estates, two are from Zürich and Vienna. I think most people will agree that it is on housing estates and in the new towns in this country that an imaginative development of small plots is most urgently needed, and this would be greatly aided if the planner created attractive boundaries and the architect abolished unsightly outbuildings. One garden illustrated from Crawley new-town successfully overcomes a major problem of the estate: that of privacy. A nicely produced and very useful little book. P. H.

The Story of Lindsey House, Chelsea, by *Peter Kroyer*. 11¼ in. 128 pp. incl. illus. + front. + 14 pls. Country Life. 1956. £2 2*s*.

Few of the thousands of motorists rushing west along the farthest stretch of Cheyne Walk realise that they are passing one of London's greatest houses. But, if they stopped, alighted and climbed on to the top of the largest barge anchored just there in the river, they would see Nos. 95 to 101 as the single mansion into which they are coalesced so brilliantly by the photographer of the book's frontispiece.

This is not strictly an architectural work; but it is a model record. Moreover, the history Mr. Kroyer gives us is entertainingly written as well as fully informative—first, about Sir Thomas More's Beaufort House from its building in 1520 up to its demolition by Sir Hans Sloane in 1740; and, secondly, about the gradual development of The Farm on that estate to become Lindsey House as it appears now. Most interesting is the chapter on the Moravian purchase of the mansion and some land behind it in 1753. This Protestant sect had created a village called Herrnhut near Dresden, where their archives have been stored for two hundred years. Hence it involved great trouble (and some risk) to obtain drawings and data from this source beyond the Iron Curtain. Yet any trouble was worth taking which threw light on that remarkable character, Count Zinzendorf (1700–1760), a wealthy nobleman and a bishop whose Orders were recognised by Canterbury. It was this man's zeal which created a kind of convent for segregated men and women in Lindsey House, and, at the same time, laid out a burial-ground for the brethren. This large but little-known open space still exists west of Beaufort Street and still serves its original purpose. The information Mr. Kroyer gives us on that and on More's stables (now a studio) overlooking it will appeal strongly to lovers of Chelsea.

Unfortunately the Moravians spent too much on their property and were forced to re-sell it in 1774 to some speculators who cut up the mansion into seven houses. That meant putting in brick party-walls, which, it was found in 1952, were nowhere bonded to the outer walls! These seven have endured a number of reconstructions and are now amalgamated or reduced to provide four residences. The author gives us their individual histories; and he ends the book with a 20-page chronological table of all the residents of Nos. 91 to 104—though the last three are extraneous to his subject. The illustrations are admirable; for they include modern and ancient plans of the house, perfectly chosen photographs and reproductions of old prints, of which the most attractive is Kip's 1695 view of Beaufort House. A. S. G. BUTLER [*F*]

Origins of Functionalist Theory, by *Edward Robert de Zurko*. 9½ in. xiv + 265 pp. London: O.U.P.; New York: Columbia U.P. 1957. £2.

On the whole this is a synoptic work, wide in its range and potentially informative. It is obviously a devoted piece of research and, if only because other material on the subject is so widely scattered, deserves to be read.

Certain defects in structure and treatment are inclined to obscure its value. There is, for example, no consistent attempt at historical evaluation and analysis, which tends to make the book an encyclopedia more than an historical treatise, although this can hardly have been Professor de Zurko's intention. Then, too, his over-generous definition of functionalism, reached through analogy, is so broad that the word becomes meaningless. In a certain sense, even the most formalistic approach to art has a symbolic function. Are we to assume, therefore, that functionalism has roots in formalism? This is what Professor de Zurko's position ultimately leads me to conclude.

GEORGE WEITZMAN

Building a Byre, by *Robert J. Forsyth*. (West of Scotland Agricultural College Bulletin No. 151.) 8½ in. 23 pp. incl. illus. Glasgow. 1956. 1*s*.

This pamphlet, one of several by Robert J. Forsyth [*A*], summarises a great deal of practical information on the problem of building byres for milking cows. It is well illustrated with photographs, plans and details.

Perspective, a new system for designers, by *Jay Doblin*. 9½ in. × 12¼ in. 68 pages incl. illus. New York, Whitney Publications, Inc., 1956. $5.00.

This book by Mr. Jay Doblin makes a definite contribution to the subject: indeed he is well qualified to do this. As an experienced illustrator, he spent a considerable time with the Raymond Loewy organisation, where the practice of using orthographic projection is extensively used in studying design. His lucid presentation follows logically from his later teaching experience.

Mr. Doblin begins by outlining the numerous errors which occur in perspective and which he has had to deal with in practice. He reviews the three main methods of perspective in use today, the two-elevation system, the top-plan and the measuring-point system; the latter has generally been given insufficient consideration in the past.

The 45 degrees oblique perspective is Mr. Doblin's personal contribution. He explains the system clearly with an examination of the cube, but its limitations are also considered. Of special value is the training of the eye which this new approach gives, and the author goes on to show its development with three vanishing points and complex forms.

The layout and typography of this book are good, there being a happy combination of text and illustrations, many of the latter being a white line on a black background. The practitioner and student alike will find it a useful reference book.

F. S. ALEXANDER [*A*]

Harlow 1957. Official handbook and guide. 8 in. 152 pp. incl. illus. Harlow: Shenval Press. 1957. 3*s*. 6*d*.

The compilers and publishers (who are also the printers) of this guide should be congratulated. It is handy, attractively presented, and full of useful information. It includes a summary of the Master Plan by Frederick Gibberd [*F*], Architect Planner to the Harlow Development Corporation, as well as an industrial directory, a history of the district, full details of shopping facilities, a report on the main developments which occurred in 1956, advice to newcomers and an excellent map and street plan. It is also well indexed, a rare feature for a local guide.

Record Houses of 1957. Reprint of Mid-May issue of ARCHITECTURAL RECORD. 11¾ in. 286 pp. incl. illus. New York: Dodge Corpn. 1957. £1 2*s*.

Twenty-five recent American houses are here recorded and illustrated in some detail. Russell Lynes, who sometimes comments engagingly on American taste, introduces them with a charming article, in which he discusses both the changing and apparently immutable characteristics of home in the United States. I think I detected some nostalgia in Mr. Lynes, but none at all in these houses from the pages of ARCHITECTURAL RECORD. J. C. P.

Notes and Notices

NOTICES

Eighth General Meeting, Tuesday 20 May 1958 at 6 p.m. The Eighth General Meeting of the Session 1957–58 will be held on Tuesday 20 May 1958 at 6 p.m. for the following purposes:

To read the Minutes of the One Hundred and Twentieth Annual General Meeting held on 6 May 1958; formally to admit new members attending for the first time since their election.

The Hon. Humphrey Pakington, O.B.E., D.L. [*Retired F*] to read a paper on 'The Passing Show'.

(Light refreshments will be provided before the meeting.)

Session 1957–58. Minutes VI. At the Sixth General Meeting of the Session 1957–58 held on Tuesday 15 April 1958 at 6 p.m.

Mr. Kenneth M. B. Cross, M.A., President, in the Chair.

The meeting was attended by about 200 members and guests.

The Minutes of the Fifth General Meeting held on Tuesday 4 March 1958 were taken as read, confirmed and signed as correct.

The President spoke on the presentation of the Royal Gold Medal 1958 to Mr. R. Schofield Morris, B.Arch., F.R.A.I.C. [*F*] (Canada), and called upon Mr. S. D. Pierce, O.B.E., Acting High Commissioner for Canada, Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President, Mr. Basil Spence, O.B.E., A.R.A., A.R.S.A., Hon. Secretary, Sir Hugh Casson, M.A., R.D.I. [*F*], and Mr. G. A. Jellicoe, M.T.P.I., P.P.I.L.A. [*F*], who also spoke.

The President then asked Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President, and Sir Percy Thomas, O.B.E., Past President (two Royal Gold Medallists), to escort Mr. Morris to the platform.

Having been invested with the Medal, Mr. Morris expressed his thanks for the honour conferred upon him.

The proceedings closed at 6.55 p.m.

Current R.I.B.A. Publications. The price for the **Prizes and Studentships** (pamphlet) is **3s.**, postage 6*d.*, and not 2*s.* 6*d.*, postage 6*d.*, as stated in the April issue of the JOURNAL.

R.I.B.A. Kalendar. As a result of the Council's decision, as mentioned in the February 1958 number of the JOURNAL, a complete edition of the Kalendar will not be issued this year, but a Supplement to the 1957–1958 edition will be published in the autumn. This will cover changes in membership, but will not contain changes of address.

The R.I.B.A. Appointments Department. Members and Students of the R.I.B.A. and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

COMPETITIONS

Civic Centre, Ipswich. Last date for submitting designs in the preliminary stage: 25 August 1958.

Full particulars were published in the JOURNAL for March, page 173.

Design of Wooden Office Furniture. Last date for submitting designs in the first stage: 29 August 1958.

Full particulars were published in the JOURNAL for March, page 173.

COMPETITION RESULT

Reinforced Concrete Factory Building

1. Joseph Mendleson [*A*] and J. H. C. Lamb [*A*].
(Consulting Engineers: Z. L. J. Woloszczuk, B.Sc.(Eng.) and R. Wilcox, A.C.G.I., B.Sc. (Eng.).)
2. E. H. Eames [*A*], P. G. Frome [*A*], P. Drew [*A*], P. H. Saunders [*Student*] and J. D. Morris [*Student*].
(Consulting Engineers: Z. L. J. Woloszczuk, B.Sc.(Eng.) and A. B. Szulc, B.Sc.(Eng.).)
3. C. J. Bromley [*Student*], P. S. Buckhurst [*Student*], G. V. Hansen [*Student*] and J. R. Peverley [*Student*].
(Consulting Engineer: K. Szmidt, A.M.I.Struct.E.)

BOARD OF ARCHITECTURAL EDUCATION

R.I.B.A. Final Examination, November–December 1957. The R.I.B.A. Final Examination was held in London, Leeds, Manchester, Newcastle, Edinburgh and Belfast from 27 November to 6 December 1957.

Of the 351 candidates examined, 167 passed as follows:—

Passed Whole Examination	109
Passed Whole Examination Subject to approval of Thesis	1
Passed Part 1 only	57
	167

184 candidates were relegated.

The successful candidates are as follows:—

Whole Examination:

Ainley: Brian
Argent: K. N.
Ashbourne: Dennis
Auger: G. C. B.
Bailey: James
Baker: D. L. J.
Barker: R. M.
Barnett: Miss H. W. (Distinction in Thesis)
Bedford: H. T.
Bernard: F. R.
Binnington: J. R.
Bishop: R. E. J.
Bisley: Patrick
Blakey: R. B.
Blee: A. D. (Distinction in Thesis)
Buckingham: P. F.
Buckman: D. J.
Burton: Geoffrey
Callcut: D. A.
Carr: I. C.
Cawdron: E. J. H.
Clark: W. A.
Clements: M. F.
Clink: J. J.
Cobert: M. N.
Cottle: B. F.
Croydon: D. A.
Cutler: J. D.
Dalton: J. B.
Davis: C. B.
Dean: P. N.
Dean: Ronald
De St Croix: A. M.
Devese: Graham
Draper: Kenneth
Dry: D. W.
Dunkley: M. C.
Eaton: H. B.
Esteves: J. J.
Fijalkowski: B. W.
Ford: B. A.
Ford: T. E.
Garratt: R. L.
Gasiewicz: Z.
Gibson: Thomas
Gott: John
Greene: K. A.
Greenwell: A. R.
Greenwood: A. G.
Harris: C. L.
Harrison: Keith
Hathaway: K. R.
Hawkes: S. A.
Helme: J. D.
Hiney: L. M.
Hulme: F. P.
Jackman: L. E. C.
James: W. L.
Kemp: R. J.
Kennedy: P. G.
Knox: D. G. G.
Lane: M. J.
Lansley: J. W.
Leake: Miss B. V. F.
MacDonald: A. W.
McGregor: K. S.
Makepeace: P. E.
Marsh: J. E.
Mellor: D. M.
Miller-Williams: Mrs. S.
Mills: J. E.
Milnes: W. E.
Moody: B. G.
Morris: W. H. F.
Mutton: J. E.
Owen: J. T.
Platts: A. R.
Porter: S. H.
Powell: P. K.
Ridlington: R. M. (Distinction in Thesis)
Robinson: Alan
Robinson: Albert S.
*Robson: P. L.
Ruane: B. B.
Schofield: L. M.
Sefton: A. H.
Seward: A. M.
Sexton: J. R.
Shaw: R. W.
Shryane: John
Sidhaye: J. G.
Soutar: A. D.
Stansell: Miss E. M.
Stewart: P. A.
Stott: K. A.
Stubbings: P. J.
Thomas: J. M. (Distinction in Thesis)
Thrasher: P. T.
Upfold: J. K.
Vickers: D. A.
Wareing: A. G.
Watson: B. D.
Watts: A. V.
Westbrook: R. H.
White: D. N.
White: R. J.
White: T. F. R.
Wigmore: Colin
Wilkinson: M. W.
Wood: H. D.

* Subject to approval of Thesis.

Part 1 only

Aldrich: B. J.
Bailey: D. W.
Barden: Kenneth
Barker: L. B.
Barnes: F. J. E. C.
Beckett: Roy
Broom: A. M.
Buck: J. A.
Burnett: P. D.
Byrom: R. A.
Chamberlayne: Derek
Cherrill: J. O.
Child: Ronald
Coats: I. H.
Dale: A. K.
Davies: R. S. I.
Davis: J. N.
Dryden-Brownlee: John
Everton: T. W.
Faulkner: Kenneth
French: D. J.
Gilbert: D. J.
Gray: G. A.
Hands: Raymond
Harman: P. N.
Harris: Brian
Harvie: T. G.
Herron: R. J.
Hinchliffe: P. G.
Hubberstey: Bryan
Jeavons: G. R.
Johnston: Miss J. E.
Kay: Derek
Langton: R.
Lawson: I. F.
Leonard: G. P.
Lucey: E. G.
Mather: Glyn
Moore: Jack
Percey: E. C.
Rawson: K. J.
Reading: Lee
Revill: G. L.
Ross: N. T.
Salkild: M. F. C.
Senior: T. R.
Shaw: R. E.
Smallbone: Miss Mary
Smalley: Peter
Smith: Raymond
Thrower: V. J.
Toft: Eric
Trussler: D. J.
Waterman: C. R.
Way: J. L.
Whateley: Brian
Wili: B. M.

The R.I.B.A. Special Final Examination. The R.I.B.A. Special Final Examination was held in London, Leeds, Manchester, Newcastle, Edinburgh and Belfast from 27 November to 6 December 1957.

Of the 420 candidates examined, 125 passed as follows:—

Passed whole examination	87
Passed Part 1 only	38
	125

295 candidates were relegated.

The successful candidates are as follows:—

Whole Examination

Arnold: M. H.
Baker: E. C.
Bandekar: C. B.
Bellamy: J. F.
Biggs: F. P. G.
Bond: A. E.
Carter: D. J.
Chalmers: J. A.
Cooper: Dennis
Cracknell: O. D.
Davis: T. W.
De Courcy: A. J.
Dickinson: F. E.
Dinerman: A. W.
Dodd: G. H.
Drury: R. B.
Dunaway: J. H.
Earle: J. H.
Evelyn: Kenneth
Fenner: J. E. A.
Fleming: Peter
Fox: John
Grandidge: T. R. W.
Hards: V. A.
Harrison: J. F.
Henderson: William
Henderson-Gray: Bruce
Hersey: Harold
Hodgson: J. W.
Hollis: D. M.
Howard: E. C.
Hughes: A. H.
Inns: G. E.
James: G. W
Jones: G. R.
Kay: Geoffrey
Kilkenny: J. A.
King: M. H. A.
Knight: A. J.
Knowles: P. M. W.
Knowling: Dennis
Kozik: M. J.
Lane: D. J.
Langdell: Geoffrey
Lawes: William
Lee: B. S.
Loney: W. P.
Loveless: D. E.
Mawson: T. P.
Middleton: T. J.
Mitton: J. D.
Moores: J. E.
Mullan: M. B.
Newlove: John
Panayiotou: E.
Poplett: T. A. J.
Porter: Dennis
Prichard: Leonard
Razell: K. W. C.
Reynolds: L. W.
Richardson: J. W.
Richmond: E. W.
Ricketts: D. G.
Roberts: D. E.
Robertson: G. W.
Robinson: G. E.
Robinson: L. A.
Rushton: Alan
Sharp: L. S.
Suppel: Z. A.
Sykes: L. D. F.
Taylor: A. S.
Thorne: D. H.
Thornton: R. C.
Turner: R. F.
Vaclavik: George
Wagner: A. A. W.
Watson: Francis
Watson: J. C.
Wheatley: George
White: H. A.
Whitfield: Stewart
Whittemore: J. E.
Whitworth: Fred
Whyte: A. M.
Wildgoose: Alexander
Wojnar: S. K.

Part 1 only

Bilton: Phillip
Brown: M. H.
Campbell: M. F.
Carse: George
Chalk: J. W.
Claridge: Miss M. M.
Clulow: F. N.
Crossley: D. P. V.
Fowler: N. J.
Hay: J. S.
Heatley: M. D.
Hill: D. S.
Huyton: G. E. A.
Ifill: L. M.
James: H. O.
Kennedy: C. F.
Kershaw: J. T.
Long: R. W.
Martin: A. H.
Miller: H. A.
Milton: W. F.
Morris: F. W.
Oldfield: Frank
Reeman: Miss T. M.
Reynolds: G. J. D.
Roberts: J. M.
Rylah: John
Scott: J. J.
Smith: R. H.
Spivey: A. J.
Stanley: W. G.
Stanton: F. H.
Thomas: N. D.
Tupman: R. C.
Van Mol: G. A. J.
Watkins: H. D.
Wilson: Mrs. Patricia
Young: Ivor

R.I.B.A. Examination in Professional Practice and Practical Experience. The Examination in Professional Practice and Practical Experience was held in London and Edinburgh on 27 and 28 March 1958. Of the 233 candidates examined, 202 passed and 31 were relegated. The successful candidates are as follows:—

Ainley: Brian
Aitken: A. R. I.
Argent: K. N.
Arnold: M. H.
Aroskar: A. D.
Ashbourne: Dennis
Ashdown: M. F. B.
Atkinson: D. S.
Baker: E. C.
Bargman: John
Basing: J. D. A.
Beake: P. R.
Beard: N. W.
Bellamy: J. F.
Bernard: F. R.
Bhonsale: D. S.
Bigg: A. C.
Biggs: F. P. G.
Billingham: J. D.
Bisley: Patrick
Blakey: R. B.
Blaszczyk: W.
Buckman: D. J.
Burton: Geoffrey
Caple: A. J.
Carter: D. J.
Cawdron: E. J. H.
Clapson: Dennis
Clark: S. F.
Clark: W. A.
Clink: J. J.
Cobert: M. N.
Coleman: J. H. A.
Cooper: Dennis
Cooper: W. P. R.
Cracknell: O. D.
Cutler: J. D.
Davis: T. W.
Denney: P. J.
De St. Croix: Michael
Dickinson: F. E.
Dinerman: A. W.
Dixon: Donald
Dowse: K. E.
Draper: Kenneth
Dunaway: J. H.
Earle: J. H.
Elsworth: Brian
Evelyn: K. C. M.
Feldstein: Bernard
Fijalkowski: B.
Finch: W. Q.
Fleming: Peter
Floydd: J. D.
Ford: B. A.
Ford: T. E.
Fox: John
Frankcombe: B. H.
Fyson: G. D.
Gaskin: Peter
Gibson: K. R.
Gibson: Thomas
Gloag: B. S. L.
Grandidge: T. R. W.
Granelli: Remo
Gray: T. M.
Greene: K. A.
Greenwell: A. R.
Gurney: A. E.
Haigh: Brian
Hall: Miss Rosemary
Hards: V. A.
Hardy: G. M.
Harrison: J. F.
Hawkes: S. A.
Heaton: J. M.
Henderson-Gray: B. H. W.
Hersey: Harold
Hiney: L. M.
Hodgson: J. W.
Hollingsworth: Ivor
Hollis: D. M.
Howard: E. C.
Hudson: A. J.
Hughes: A. H.
Hughes: F. A.
Hulme: F. P.
Inns: G. E.
James: G. W
Jefford: W. F.
Jones: G. R.
Jordan: J. E.
Jump: A. N.
Kaczmarczyk: S.
Kay: Geoffrey
Kemp: R. J.
Kennedy: P. G.
Ketkar: M. A.
Kilkenny: J. A.
King: M. H. A.
Kleiber: Jan
Knight: A. J.
Knowles: P. M. W.
Knowling: Dennis
Knox: D. G. G.
Lane: D. J.
Lane: M. J.
Langdell: Geoffrey
Langmead: L. S.
Lansley: J. W.
Loney: W. P.
Loveless: D. E.
Lubicz-Nycz: J.
McConaghy: J. D.
Mackett: F. J.
Mason: A. R.
Massey: G. W.
Mathews: Frank
Mawson: T. P.
Meldrum: A. F.
Middleton: T. J.
Mills: J. E.
Mitton: J. D.
Mitton: R. C.
Muggleton: B. A.
Mullan: M. B.
Newlove: John
Obermeister: Louis
Oliver: K. A.
Phippen: Peter
Poplett: T. A. J.
Porter: S. H.
Power: G. C.
Prichard: Leonard
Pye: K. G.
Razzell: K. W. C.
Redwood: J. N.
Reynolds: L. W. G.
Richardson: J. W.
Richmond: E. W.
Ricketts: D. G.
Roberts: D. E.
Robertson: G. W.
Robinson: Alan
Robinson: A. S.
Robinson: G. E.
Robinson: L. A.
Robson: P. L.
Rome: Mrs. M. L.
Rushton: Alan
Schofield: L. M.
Seward: A. M.
Shaw: R. W.
Simpson: G. M. T. C.
Skelton: B. M. B.
Stapleton: R. C.
Stewart: P. A.
Stott: K. A.
Streatfield: D. C.
Stroud: J. A.
Sumner: J. B.
Surti: D. R.
Sykes: L. D. F.
Taylor: A. S.
Taylor: R. H. F.
Thomas: J. M.
Thorne: D. H.
Thornton: R. C.
Tilley: N. S.
Todd: R. B.
Townsend: A. M.
Turner: J. R.
Turner: R. F.
Upfold: J. K.
Vaclavik: George
Wagner: A. A. W.
Walsingham: P. R.
Ward: Cecil
Wareing: A. G.
Watson: Francis
Weal: Francis
Webb: I. A.
Weddle: Brian
West: D. J.
Wheatley: George
Whitaker: W. T.
White: B. K.
White: D. N.
White: H. A.
White: T. F. R.
Whitehouse: P. J.
Whitfield: Stewart
Whittemore: J. E.
Whitworth: Fred
Whyte: A. M.
Wigmore: Colin
Wilczynski: J. A.
Wildgoose: Alexander
Wilkin: M. J.
Wilkinson: M. W.
Wojnar: S. K.
Woodford: F. R. R.

R.I.B.A. Intermediate Examination. Amendment to the Regulations for Admission to the Examination. The Council of the Royal Institute have decided that, with effect from 1 January 1960, no candidate will be allowed to take the R.I.B.A. Intermediate Examination unless he can show that he has spent either two years working under the direction of a Registered Architect or in attendance at a full-time course at a School of Architecture.

ALLIED SOCIETIES

Changes of Officers and Addresses

Devon and Cornwall Society of Architects. President, Frederick Napp, A.M.T.P.I. [*A*].

Essex, Cambridge and Hertfordshire Society of Architects. Chelmsford and District Chapter. Chairman, R. P. Ferguson [*A*]. *Southend-on-Sea and District Chapter.* Chairman, P. F. Burridge [*F*].

Hampshire and Isle of Wight Architectural Association, Eastern Chapter. Chairman, Ian L. Bailey [*A*]. Hon. Secretary, Gerald B. Piper [*A*], Room 8, Portland Chambers, Fareham. Hon. Treasurer, F. J. Guy [*A*]. *Isle of Wight Chapter.* Chairman, A. G. Biggs [*A*], as from 1 July 1958.

Liverpool Architectural Society. President, M. G. Gilling [*F*].

Sheffield, South Yorkshire and District Society of Architects and Surveyors. President, S. E. Shepherd [*L*], as from 31 May 1958.

South Eastern Society of Architects. Croydon District Chapter. Chairman, Charles Sykes [*F*], as from 1 July 1958.

Bristol and Somerset Society of Architects. Annual Supper Dance. The Society's annual supper dance was held at the Grand Spa Hotel, Clifton, Bristol, on Friday 28 March 1958, when 240 members and friends spent a most enjoyable evening. An excellent cabaret of conjuring and topical calypsos was provided by students the Royal West of England Academy School of of Architecture.

York and East Yorkshire Architectural Society. Annual Dinner Dance. The Society's annual dinner dance was held at the Royal Station Hotel, York, on Friday 11 April 1958. The President, Mr. C. Leckenby [*F*], was in the chair and the R.I.B.A. was represented by the President, Mr. Kenneth M. B. Cross and the Secretary, Mr. C. D. Spragg, C.B.E. Among the guests were Mr. A. D. Gladwin, J.P., General Manager of the Yorkshire Insurance Company, and Mr. C. W. Robinson, President of the Yorkshire Law Society.

Mr. Gladwin proposed the toast of the R.I.B.A., and Mr. Cross replied, and the toast of the guests was proposed by Mr. Leckenby to which Mr. Robinson responded.

Notes from the Minutes of the Council

MEETING HELD ON 15 APRIL 1958

Appointment of R.I.B.A. Representatives

(*a*) *R.I.B.A. Architecture Bronze Medals: Juries to consider Awards.* (i) *Suffolk Association of Architects.* Noel Tweddell [*A*]. (ii) *Norfolk and Norwich Association of Architects.* R. O. Foster [*F*]. (iii) *Leicestershire and Rutland Society of Architects.* Herbert Jackson [*F*], President, Birmingham and Five Counties Architectural Association.

(*b*) *National Old People's Welfare Council: 9th Annual Conference, April* 1958. S. W. J. Smith [*F*].

(*c*) *Codes of Practice Committees and B.S.I. Committees.* (i) *TIB*/7 *Plywood for Constructional Work.* R. J. Whitley [*A*], in addition to R. T. Walters [*A*] and George Newell [*A*]. (ii) *B*/94 *Modular Co-ordination.* O. C. F. Carey [*A*]. (iii) *WPC*/4 *Organic and Water Solution Preservatives.* J. C. Kennedy [*A*]. (iv) *TIB*/3/2 *Carpentry Terms.* R. S. Laskey [*A*], in place of George Newell [*A*]. (v) *TIB*/6/2 *Definitions of Joinery Terms.* R. S. Laskey [*A*], in place of R. T. Walters [*A*]. (vi) *TIB*/9 *Wood Blocks.* R. S. Laskey [*A*], in addition to George Newell [*A*]. (vii) *BLCP*/1 *Building Drainage.* F. H. Lloyd [*A*], in addition to A. H. Ley [*F*]. (viii) *BLCP*/14 *Roof and Yard Drainage.* F. H. Lloyd [*A*], in addition to A. H. Ley [*F*].

Professor Robert H. Matthew, A.R.S.A. The Council's congratulations on his election as an Associate Member of the Royal Scottish Academy were conveyed to Professor Robert H. Matthew [*F*].

Membership. The following members were elected: as Honorary Associates 2; as Fellows 2; as Associates 70.

Students. 40 Probationers were elected as Students.

Applications for Election. Applications for election were approved as follows: *Election* 17 *June* 1958: as Associates 28.

Applications for Reinstatement. The following applications were approved: as Fellow: Maurice Chesterton. As Associates: David Harold Bishop, Miss Margaret Pauline Tallett. As Licentiate: Harold Thomas William Gough.

Resignations. The following resignations were accepted with regret: Robert Furneaux Jordan [*F*], Robert Hunter Cameron [*A*], Mrs. Gene Hendon [*A*], Mrs. Sheila Lasham [*A*], David Christopher Scott [*A*], Mrs. Janet Elizabeth Single [*A*], Miss Heather Yetton [*A*], Barrington Thomas Fitkin [*L*], Richard Clavell Luke White [*L*], Walter Edgar Woodin [*L*].

Applications for Transfer to Retired Members' Class under Bye-law 15. The following applications were approved: as Retired Fellows: Reginald Palmer Baines, Peter George Herbert Fawcett, Alexander Smeaton Robertson, Grahame Burnell Tubbs. As Retired Associate: Captain Joseph Wallace Binge. As Retired Licentiate: Herbert Baines.

Obituary. The Secretary reported with regret the death of the following members: Professor Porfirio Pardal Monteiro [*Hon. Corr. Member*], Burjor Sorabshaw Jamshedji Aga [*F*], Lieut.-General Sir John Brown, K.C.B., C.B.E., D.S.O., T.D., J.P., D.L. [*F*], Duncan Walter Clark [*F*], Derrick Raymond Humphrys [*F*], Herbert Thompson Rainger [*F*], Archibald Buller West [*F*], George Willie Smith [*Retd. F*], John Charles Amory Teather [*Retd. F*], Bernard Ridley Walker [*Retd. F*], Percival Howard Douglas [*A*], Captain Herbert Haines [*A*], Phiroze Jijibhoy Khambata [*A*], Lieut.-Comdr. Edward Dominic O'Connor, V.D. [*A*], Leonard Percy Williams [*A*], William Bonner Hopkins [*Retd. A*], John Gray Martin [*Retd. A*], George William Eccles [*L*], Robert Wyndham Nunweek [*L*], Arthur Charles Plumpton Smith [*L*], Edward Taylor [*L*], William James Venables [*L*], Walter Edgar Woodin [*L*], Destin William Asman [*Retd. L*], George Lister Coates [*Retd. L*], Miss Celia Rosemary Partridge [*Student*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

GENERAL NOTES

London County Council. Qualifying examination for the office of district surveyor. An examination for certificates of proficiency to perform the duties of district surveyor will be conducted in London in the week commencing 13 October 1958. The minimum age limit for candidates is 25. Possession of this certificate is necessary for appointment to positions as District Surveyor (salary scales £1,500 to £2,900 a year) or as Assistant District Surveyor (salary scale £1,245 to £1,482 10s. a year, plus allowance £59 a year).

Candidates should apply to The Architect to the Council (AR/ED/CTB), County Hall, Westminster Bridge, S.E.1, for application forms and further particulars.

Town and Country in Yugoslavia, Study Tour, 9–28 September 1958. A holiday study tour in Yugoslavia from 9–28 September 1958 has been arranged by the Town and Country Planning Association with the help of the City Planning Committee of Belgrade and the Committee of Yugoslav Cities. The tour is meant to show examples of the various cultures which have gone to make up modern Yugoslavia and also contemporary developments in planning, housing and industry.

The party is limited to 35 persons. The cost, including travel, accommodation and meals for the whole tour will be £90. Applications should be addressed to the Town and Country Planning Association, 28 King Street, Covent Garden, London, W.C.2. (TEMple Bar 5006–7.)

British Architectural Students' Association. The British Architectural Students' Association has now been formed.

For the past few years there has been no organisation capable of correlating the activities and opinions of architectural students of the British Isles.

That delegates from 22 constituent bodies should have met indicated the need for an architectural forum, and one of the aims of the British Architectural Students' Association will be to draw together all part-time and full-time students and all interested members of the profession into this forum.

The Honorary Secretary B.A.S.A., 5 Mossley Hill Drive, Liverpool, 17, will welcome any inquiries from both students and qualified members of the profession, and will forward a report of the second Conference on request.

International Seminar on Hospital Construction. The report of the Seminar which was organised last year in Geneva by the International Union of Architects and the International Hospital Federation in collaboration with W.H.O. has now been published and is on sale. The report is in two volumes. Volume 1 contains about 300 pages of text and includes the 38 papers delivered at the Seminar. Volume 2 contains about 100 pages of text and 50 pages of illustrations, plans and photographs. This volume includes a record of the discussions.

The volumes cannot be sold separately, but they can be obtained at the price of Sw. Fr. 55 (about U.S. $13) on application to: International Seminar on Hospital Construction, P.O. Box 239, Geneva 2 (Cornavin), Switzerland.

The name and the address of the subscriber, the number of copies ordered and whether the subscriber wishes the first volume to be in French or English—two editions are to be published—should be clearly stated. Payments, which can be arranged through any bank, should be made to the CREDIT SUISSE, Geneva, on behalf of the Seminar.

A limited number of copies will be available; orders will be dealt with strictly in rotation.

Farm Building Design Fellowship. The Agricultural Research Fellowship in farm building design endowed by the National Farmers' Union has been awarded to Mr. J. B. Weller [*A*] of Wolverhampton.

The object of the Fellowship, open to qualified architects, is to advance and improve the design of farm buildings, so as to increase efficiency by reducing labour and working costs.

The Joseph Emberton Memorial trophy, a pair of silver dishes designed and made by Gerald Benney, which has been presented to the R.I.B.A. Golfing Society by Mrs. Emberton, the widow of the late Joseph Emberton [*F*]. The trophy is to be played for annually in a foursomes tournament by members of the R.I.B.A.G.S. This year's winners were Charles Tucker [*A*] and Bernard Bancroft [*A*], who defeated Eric Firmin [*F*] and R. Duncan Scott [*F*] in the final of the competition played at St. George's Hill at the Society's Autumn meeting

Birmingham School of Architecture. Architectural Schools' Meeting. On Tuesday 25 March students from six schools of architecture—Oxford, Birmingham, Bristol, Leicester, the Bartlett and Liverpool—assembled at the Birmingham School, where they viewed an exhibition of work from each school. This provoked much argument and discussion and it is hoped that such a meeting will lead to closer links between the schools and a broader outlook.

After lunch the schools contested in a seven-a-side rugby tournament which was won by Birmingham, against strong opposition. In the evening a crowd of 700 attended the tournament dance where the trophy, inaugurated by Bristol last year, was presented.

Obituaries

Francis John Humphry [*Retd. F*] died on 31 December 1957, aged 74.

Mr. Alner W. Hall, M.C. [*F*], partner in the firm of Young and Hall, writes:

'The death of Francis John Humphry leaves a sad gap among his many friends very difficult to fill and more especially among his friends and partners in his firm of Young and Hall, in which he was a member for many years.

'Humphry had a varied architectural life, starting in the early days of his career, when living at Worthing, with Messrs. Simpson and Son [*A*] of Brighton. After coming to London he finally settled down in Surbiton and joined the firm of Messrs. Searle and Searle [*AA*], with whom he stayed until the outbreak of war in 1914.

'Humphry at once volunteered but was not accepted until June 1916, when he joined the R.E.'s Signalling Branch. He was at first at headquarters, then went overseas to France, when he was in the front lines on communication work.

'On his return to England after demobilisation, the late Keith Young [*F*] suggested that Humphry should be asked to join the firm of Young and Hall.

'As a partner Humphry made himself a special corner in the firm's many-sided practice. He took over all the work the firm was then doing for Messrs. Young and Co.'s Brewery, Ltd., and for them he designed a number of new houses and carried out alterations and adaptations to many others. He helped much with the hospital work and was invited by the Surbiton Hospital Committee to prepare plans for large extensions then under discussion.

'Humphry was also engaged on church work, and it was largely due to this that at the beginning of the Second World War he was appointed one of a small group of architects by the South London Church Fund to survey and report on churches and other ecclesiastical buildings subject to war damage and carry out all negotiations with the War Damage Commission. This was a difficult and often dangerous task, but was carried out by him with consistent accuracy and fairness.

'On its formation Humphry joined the Home Guard and remained an active member to the end of the war.

'Always a very loyal and interested member of the firm, Humphry retired shortly after the end of the Second World War, but kept in close touch with the activities of the firm to the end.'

Arthur John Stedman [*Retd. F*] died on 21 February 1958, aged 89.

Mr. Stedman was educated at Hungerford School and joined the firm of Messrs. Goddard and Sons of Farnham in 1874. Twelve years later he commenced practice on his own account at Farnham. His son, Mr. Leonard R. Stedman [*A*], was taken into partnership in 1935 and is continuing the practice.

Mr. Stedman had made a study of church architecture and was Guildford Diocesan Surveyor from 1925–50. Among his earlier works were churches at Ash Vale and Lower Bourne, Surrey, and the parish hall in The Bourne, Farnham; and domestic work included house, lodge and stables at Hindhead for B. Densham, and individual houses at Frimley, Rowledge, Frensham, Great Austins and Shortheath at Farnham, Seale, near Farnham, and Hook, Hants. He also designed shops at Haslemere, Bordon and Hindhead, and a number of inns.

Mr. G. Maxwell Aylwin [*F*] writes in tribute:

'The passing of Arthur John Stedman in his ninetieth year brings to a close the long career of a much respected country architect.

'My recollections of him go back far into childhood, and my first personal contact with him began in 1905 while still at school and determined upon a career in architecture, when I attended classes in building construction under him at Farnham School of Art. It was from him that I received my first grounding in the subject, and I have often since had reason to remember it gratefully, for he was a master of his subject.

'It was this side of his capabilities which most influenced his work, for his name is always associated with sound and honest building, in which there was no place for that cutting into the safety limit with which we have become only too familiar since the wars, and with which few of us can claim never to have trifled. After that, those who have dealt with him will remember his inflexible rectitude and his adherence to the highest standards of professional conduct.

'So far as I can testify my career in the same town with him has been a record of friendship rather than rivalry, and when our ways crossed it was always evident that he was a scrupulously fair man seeking for his clients no more than their just dues.

'The period of his prime was not a golden age in country architecture, and to appraise his work it is necessary to discount the false romanticism which pervaded the country scene and which needed a Norman Shaw to bring to life. By such a measure such work of his as the Macdonald Almshouses at Farnham reveals a sense of balance and form as to have a rightful name as architecture, as do many of his domestic works in which he progressed cautiously with his times.

'His practice embraced much ecclesiastical work, as well as industrial buildings of considerable merit, and licensed work. In this he enjoyed the wide variety which comes to the architect who has become accepted into his urban community.

'Only a few knew of the many kindnesses and good works for which he neither gained nor sought recognition, but out of his character honours were often thrust upon him. From his brother architects he had the honour of election as President of the South Eastern Society of Architects in 1948 and had also been a past Chairman of the Society's Guildford Chapter, and from his fellow-townsmen he became Founder President of the Rotary Club of Farnham, President of the Chamber of Commerce, President of the Cricket Club, and Rector's Churchwarden at St. Andrew's, to name only a few of the offices he held. In all of them he was no figurehead, but an untiring worker. He leaves behind many friends to mourn him.'

William Henry Taylor, F.R.I.C.S. [*Retd. L*] died on 14 October 1957, aged 78.

Mr. Taylor was educated at Retford Grammar School and Nottingham University and received his training in the office of his father Mr. S. Taylor, F.S.I. In 1922 his father took him into partnership as Taylor and Son and he became senior partner in the firm of Taylor and Royle in 1930. Mr. G. T. Mundy, F.R.I.C.S. [*L*] was taken into partnership in 1941 when the firm became styled Taylor, Son and Mundy. Mr. Taylor retired in 1941, although he retained an interest in the firm in a consultative capacity, and Mr. Mundy has been carrying on the practice since then under the same name.

Mr. Taylor's principal works included brewery extensions and new licensed premises, farm buildings, including those of the Midland Agricultural College, cottages on agricultural estates, schools and church halls.

Mr. Taylor's speciality was quantity surveying and valuations which he carried out for the Royal London Building Society and he was a lecturer on land surveying and levelling at the Midland Agricultural College. He was a President's Prizeman of the R.I.C.S., and a past Chairman of the Nottingham, Derbyshire and Lincolnshire Branch of the R.I.C.S. He was also a Barrister-at-Law. and the author of a 'Handbook of law relating to the sale and purchase of real property'.

Frank Woodward [*A*] died on 1 February 1958, aged 75.

Mr. Woodward was educated at Mount School, Hampstead, and received his architectural training in the office of his father, Mr. William Woodward, F.S.I. [*F*]. Later both he and his elder brother, Mr. Charles Woodward [*A*], were taken into partnership by their father.

During the First World War he was commissioned in the Royal Engineers and saw service in the Middle East. After the war he resumed partnership in the firm of W. Woodward and Sons.

Mr. Woodward became very interested in the affairs of the Royal Institute and was a member of the Council from 1922–23 and he served on the Competitions Committee, Registration Committee and Selection and General Purposes Committee. After the Second World War, during which he worked for Wood Green Borough Council, he took up the joint duties of Secretary to the R.I.B.A. Architectural Science Board and Technical Assistant Editor of the JOURNAL, under Mr. Eric Bird [*A*]. He had always enjoyed writing and contributed technical and humorous articles to a number of magazines, and he brought to the writing of the 'Review of Construction and Materials' for the JOURNAL, his gifts of factual, unambiguous exposition and sense of humour.

Mr. Woodward had wide interests which kept him young and made him a delightful colleague up to his last days.

His widow, Mrs. Margaret Woodward, was until last year the JOURNAL'S draughtswoman.

Mr. Leonard A. Culliford [*F*], writes:

'I would describe Frank Woodward as a very dear, kindly soul and a courteous English gentleman, who never said an uncharitable thing or had an unkindly thought.

'He and I first met when we were on the Council together about 35 years ago. At that time he was in partnership with his father (generally known as "Dear old Billy Woodward" —a man of outstanding personality) and his elder brother Charles.

'For a year or two the two brothers and I lunched together and it was quite a joy to

observe the warm brotherly feeling and mutual respect each had for the other.

'The firm had some good buildings standing to its credit, although, in his modest way, Frank, with his quiet humour, used to say that he had a list of streets he dared not go down!

'Even so, no epitaph could be more applicable than some lines written by a young Welsh boy (Geraint Jones) who was killed in the last war:

> "Your monument abides, wrought not in stone or clay
> but in the lives of those whose gain was knowing you."

'His wish on leaving school was to be a doctor—and what a wonderful bedside manner he would have had!—but I think it was asthma or a similar ailment which stopped him.

'Nevertheless if not brilliantly outstanding in design, he became a very competent, careful and painstaking architect.

'Frank spent the last years of his life at the R.I.B.A. assisting with the JOURNAL.'

Mr. Eric L. Bird [*A*] writes:

'Members of an official body like the R.I.B.A. are liable to take its salaried staff for granted, though the health and prosperity of the body depends in no small measure on the individual initiative and devotion to duty of the men and women who fill the salaried positions. Frank Woodward, who died recently, was one of the middle grade officers of the R.I.B.A. whose initiative and devotion to duty as Technical Assistant Editor of the JOURNAL were exemplary.

'It is true that he wrote the "Review of Construction and Materials" and some of the technical descriptions of the buildings illustrated in the JOURNAL, as well as performing the more dull jobs which the Editor wished on to him, with meticulous care for accuracy. But it was as a representative of the R.I.B.A. that he was outstanding.

'The Editor of the JOURNAL receives invitations to Press conferences and trade shows in such numbers that he himself cannot possibly attend more than a few; most must be attended by the Assistant Editor. Some are held by Ministers of the Crown, others by public bodies; some are visits to new buildings, others are demonstrations of new products. It is important that the person who attends on behalf of the R.I.B.A. JOURNAL—often construed by the holders of the Press conference as representing the R.I.B.A.—should do so worthily.

'I think members of the R.I.B.A. should know that during the past ten years Frank Woodward represented them on hundreds of occasions with great dignity and courtesy. Further, his technical knowledge was such that he could ask pertinent questions on most subjects. Some trade bodies are inclined to look on the architect as somewhat technically backward on what inevitably they regard to be a very important subject—their own. I know they were often agreeably surprised and impressed with Frank Woodward's practical grasp of the matter and his searching questions into its use in building.

'In all, he was a worthy emissary of the R.I.B.A. who, to use his own phrase borrowed from the Royal Navy, "showed the flag" at Press conferences and visits all over the country in a manner which members would warmly approve. As Editor of the JOURNAL during those ten years I am the only person who knows how ably Frank Woodward continuously did this important work of what amounts to public relations within the industry on behalf of the R.I.B.A.'

Membership Lists

ELECTION: 15 APRIL 1958

The following candidates for membership were elected on 15 April 1958.

AS HON. ASSOCIATES (2)

Cockcroft: Sir John, O.M., K.C.B., C.B.E., F.R.S., Harwell.
Hart: William Ogden, C.M.G., Hemel Hempstead.

AS FELLOWS (2)

The following Licentiates have passed the qualifying examination:—

Bell: Wilfred, Tasmania.
Dromgoole: Eric Colin Wulstan Buchanan: Southampton.

AS ASSOCIATES (70)

Balsara: Minocher Jehangir, Bombay, India.
Borg: Richard Philip, Dip.Arch.(Sheffield), Sheffield.
Bunn: Clarence Alfred, Lubbock, Texas, U.S.A.
Carrick: Peter Rushbrooke Oakes, Dip.Arch. (Birm.), Sutton Coldfield.
Chakravarti: Devaprosad, B.Arch.(L'pool), Liverpool.
Chamberlain: Roy, Oadby.
Chambers: Guy Cecil, Auckland, New Zealand.
Chipchase: Ronald, Dip.Arch.(Dunelm), Whitley Bay.
Chitale: Srikrishna Laxman, Madras, India.
Chudekar: Sharad Keshavrao, Bombay, India.
Chung: Fook Chee, B.Arch.(Auck.N.Z.), Singapore, Malaya.
Cloughley: John Anthony, Dip.Arch.(Manchester).
Cope: Garry Edward, Dip.Arch.(Birm.), Sutton Coldfield.
Corke: Hilton Edward James, M.C.D., B.Arch. (L'pool), Birmingham.
Cowburn: William Goring, Dip.Arch. (Manchester).
Crabtree: Colin, Leeds.
Cuttle: Timothy, Dipl.Arch.(U.C.L.), Loughton.
Drury: Roy William, Stapleford Abbotts.
Evans: (Miss) Nora Elizabeth Marjorie, Dip.Arch.(Cardiff), Abergavenny.
Ferguson: (Miss) Elise Victoria Margaret, A.A.Dipl.
Fleming: George Glanville, Dip.Arch.(Manchester), Wallasey.
Franklin: Norman Leonard, Dipl.Arch.(U.C.L.), Croydon.
Garnett: Patrick Barry, B.A.(Manchester), Rhyl.
Goodship: Peter, Dip.Arch.(Cardiff), Bridgend.
Gosling: David, B.A.(Arch.) (Manchester), Manchester.
Graham: John Michael, Dipl.Arch.(Leeds).
Gregg: Derick, Dipl.Arch.(Leeds), Otley.
Hanley: Colin Edgar, Dip.Arch.(Birm.), Codsall.
Horobin: Norman, Dip.Arch.(Leics.), Newcastle upon Tyne.
Houghton: Anthony Max, Dip.Arch.(Sheffield), Sheffield.
Hurst: Raymond, B.A.(Manchester).
Jones: Colin Emlyn, Dip.Arch.(Cardiff), Tonyrefail.
Joshi: Dattatray Prabhakar, Bombay, India.
Kenward: Malcolm, Dip.Arch.(Sheffield), Aldershot.
Leslie: Richard Ross, D.A.(Dundee), Dundee.
Lovell: Ian William, B.A.(Cantab.), D.A. (Edin.), Guernsey, C.I.
Lyle: David Leslie, B.Arch.(L'pool), Newton-le-Willows.
McKeefry: John Montague Augustine, Dip. Arch.(Auck.N.Z.), Palmerston North, New Zealand.
Mason: Kenneth Derek, Dip.Arch.(Sheffield), Sheffield.
Massey: Edward James, Dip.Arch.(Manchester), Warrington.
Masterman: Maurice Malcolm, Leeds.
Mayo: Eric Charles, B.A.(Arch.)(Sheffield), Sheffield.
Mistry: Bomi Munchershaw, Bombay, India.
Montague: Derek Joseph, Derby.
O'Leary: Peter Maurice, Dipl.Arch.(Oxford), Kew.
Palmer: Ray, Dip.Arch.(The Polytechnic).
Pathare: Prabhakar Mukund, Baroda, India.
Powale: Dattatraya Shantaram, Bombay, India.
Pradhan: Sharad Bhaskar, Bombay, India.
Rees: Idris John, B.Arch.(Wales), Llanelly.
Richards: Bill, West Kirby.
Roberts: Walford, Dip.Arch.(Manchester), Northampton.
Robinson: Peter, D.A.(Dundee).
Robson: William, Dip.Arch.(Dunelm), Whitley Bay.
Shilpi: Bipihchandra Jagannath, Bombay, India.
Smorczewski: Ralph, A.A.Dipl.
Spencer: David Trevor, Leeds.
Stewart: Robert Munro, D.A.(Glas.), Glasgow.
Sykes: (Mrs.) Jill Judith, Dipl.Arch.(Leeds), Leeds.
Taylor: Geoffrey, Dipl.Arch.(Leeds), Huddersfield.
Tharthare: Vinayak Keshrinath, Bombay, India.
Thompson: James Michael Hoey, Dip.Arch. (Leics.).
Thompson: Joseph Eric, Dip.Arch.(Leics.).
Turner: (Miss) Pamela Ann, Dipl.Arch. (Northern Polytechnic).
Ward: Kenneth Roy, Dip.Arch.(Sheffield), Sheffield.
Warerkar: Manohar Ramchandra, New Delhi, India.
Watson: James, D.A.(Edin.), Richmond, Yorks.
Weiss: John Saul, B.A.(Arch.)(Lond.).
Williams: Nevil David, Corby.
Woodhead: Fred, Dip.Arch.(Sheffield), Sheffield.

ELECTION: 17 JUNE 1958

An election of candidates for membership will take place on 17 June 1958. The names and addresses of the candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Monday 19 May 1958.

The names following the applicant's address are those of his proposers.

AS ASSOCIATES (28)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Aldington: Peter John, Dip.Arch.(Manchester) (Victoria Univ. Manchester: Sch. of Arch.), White Oaks, 39 Forest Drive, Keston, Kent. Prof. R. A. Cordingley, Dr. Thomas Howarth, Dr. W. A. Singleton.

Andrew: (Miss) Shirley Mabel, B.Arch., Dip. T.C.P.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.), c/o The Bank of New South Wales, 47 Berkeley Square, W.1. Prof. Denis Winston, Prof. H. I. Ashworth, Kenneth McConnel.

Ashton: Bernard, B.Arch.(L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 19 Eskdale Crescent, Feniscowles, Nr. Blackburn, Lancs. Prof. R. Gardner-Medwin, G. N. Hill, G. S. Pester.

Bannister: Brian, Dip.Arch.(Birm.) (Birmingham Sch. of Arch.), 93 Watling Street Road, Fulwood, Preston, Lancs. A. Douglas Jones, R. A. Williams, G. S. Pester.

Barker: Roy Alwyn, Dip.Arch.(Sheffield) (Univ. of Sheffield, Dept. of Arch.), 56 Blake Road, Corby, Northants. Prof. Stephen Welsh, Prof. John Needham, Dr. Denis Harper.

Beaumont: David Michael, Dip.Arch.(Sheffield) (Univ. of Sheffield, Dept. of Arch.), 'The Bungalow', Braithwaite Edge Road, Keighley, Yorks. Prof. Stephen Welsh, J. R. Young, E. D. Taylor.

Beckett: John Michael, Dip.Arch.(Sheffield) (Univ. of Sheffield, Dept. of Arch.), 36 Glover Road, Totley Rise, Sheffield. Prof. Stephen Welsh, L. T. Boyman, Prof. John Needham.

Brooks: Clive Rodon, Dip.Arch.(Leics.) (Leicester Coll. of Art and Tech.: Sch. of Arch.), 2 Rock Road, Midsomer Norton, Near Bath, Somerset. Mrs. M. J. Gerrard (Miss G. M. J. Taylor), Arthur Ling, F. Chippindale.

Christopherson: (*née* Shambrook) **(Mrs.) Jean Nora,** Dip.Arch. (The Polytechnic) (The Poly, Regent Street, London: Sch. of Arch.), 37 Queens Gate Mews, S.W.7. J. S. Walkden, F. G. M. Butlin, J. S. Foster.

Crockart: Graham Farmer, D.A.(Dundee) (Dundee Coll. of Art: Sch. of Arch.), Rawes Farm, Longfergan, Perthshire. T. H. Thoms, A. F. S. Wright, W. S. Gauldie.

Cullen: Robert, Dip.Arch.(Nottm.) (Nottingham Sch. of Arch.), 10 Brook Street, Grantham, Lincs. J. G. Woollatt, J. W. M. Dudding, D. E. E. Gibson.

Davidson: Charles Christopher, D.A.(Dundee) (Dundee Coll. of Art: Sch. of Arch.), 1 Leonard Place, Perth. Prof. John Needham, W. G. Dey, Esme Gordon.

Davies: David Meredith, B.Arch.(L'pool) (Liverpool Sch. of Arch.; Univ. of Liverpool), 'Fiacc', School Lane, Longton, Nr. Preston, Lancs. Prof. R. Gardner-Medwin, K. W. Gearey, G. N. Hill.

Faulks: Raymond Harry (Final), 18 Exton Road, Sherwood, Nottingham. J. G. Woollatt, T. N. Cartwright, J. W. M. Dudding.

Hilling: John Bryan, Dip.Arch.(Cardiff) (Welsh Sch. of Arch.: The Tech. Coll., Cardiff), Fig Tree Cottage, 10 Cathcart Road, S.W.10. Lewis John, J. S. Walkden, Basil Spence.

Jones: Ronald Ralph, A.A.Dipl.(Arch.Assoc. (London): Sch. of Arch.), 49 Brooklands Road, Bedhampton, Hants. A. C. Townsend, J. E. Tyrrell, Arthur Korn.

McDaniel: John Ronald, Dip.Arch.(Sheffield) (Univ. of Sheffield: Dept. of Arch.), 535 Upper Newtownards Road, Knock, Belfast, Northern Ireland. Prof. Stephen Welsh, Harold Conolly, T. W. Henry.

McKelvie: Peter McAlister, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 5 York Road, Edinburgh. Basil Spence, Donald Jack, Frank Wood.

Metcalfe: Peter Edward Michael (Final), 'Glenbrae', Prestbury, Nr. Macclesfield, Cheshire. Francis Jones, Cecil Stewart, W. C. Young.

Murphie: William Adair Douglas, Dip.Arch. (Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), Property and Works Department, County Offices, Kirkcudbright, E. F. Davies, John Maclennan, J. C. Miller.

Parker: Derek, Dip.Arch.(Birm.) (Birmingham Sch. of Arch.), 39 Newsham Drive, Liverpool, 6. Arthur Ling, J. T. Lewis, A. Douglas Jones.

Perry: Frank, B.A.(Arch.)(Manchester) (Victoria Univ. Manchester: Sch. of Arch.), 10 Lunn Avenue, Abbey Hey, Manchester, 18. Prof. R. A. Cordingley, Dr. W. A. Singleton, W. H. Kininmonth.

Russell: Stuart Douglas, B.Arch.(L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 30 Garthdale Road, Mossley Hill, Liverpool, 18. Prof. R. Gardner-Medwin, R. R. Young, B. A. Miller.

Swinburne: Brian, Dip.Arch.(Dunelm) (King's Coll. (Univ. of Durham) Newcastle upon Tyne: Sch. of Arch.), 1 Cutlers Hall Road, Blackhill, Consett, Co. Durham. Prof. W. B. Edwards, Bruce Allsopp, F. Fielden.

Tanner: Gerald Charles Arthur, A.S.T.C. (Arch.) (Passed a qualifying Exam. approved by the R.A.I.A.), c/o The Bank of New South Wales, 47 Berkeley Square, W.1. Prof. F. E. Towndrow, Prof. Denis Winston, Kenneth McConnel.

van Rees: Jaap, (Arch.Assoc.(London): Sch. of Arch.), 10 Stanhope Avenue, Morecambe, Lancs. Arthur Korn, A. R. Twentyman, G. A. G. Miller.

Wood: Peter John, (Special Final), 39 Thames Avenue, Chelmsford, Essex. E. R. Collister, Denis Senior and applying for nomination by the Council under Bye-law 3 (*d*).

Wotton: Dennis Arthur, (Final), 17 The Avenue, Willesden, N.W.6. Ronald Ward, Arthur Korn, Dr. R. Herz.

Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. S. L. G. Beaufoy, C.B.E., P.P.T.P.I. [*F*], has been appointed Chief Housing and Planning Inspector to the Ministry of Housing and Local Government in succession to **Mr. F. Collin Brown,** C.B.E., M.T.P.I. [*F*], who retired on 5 May. **Mr. E. G. S. Elliot,** O.B.E., M.A., M.T.P.I., succeeds Mr. Beaufoy as Chief Technical Planner and **Mr. J. R. James,** O.B.E., B.A., F.R.G.S., becomes a Deputy Chief Technical Planner.

Mr. F. D. Craddock [*A*] has relinquished his post of Principal Assistant Architect to the North West Metropolitan Hospital Board, and has taken up appointment as an Architect in the Public Works Department, Singapore.

Mr. R. A. Howells [*A*] has resigned from the firm of **Radford, Howells and Partners** [*A*] to take up the appointment of Staff Architect to Messrs. Madhvaninagar Sugar Works Ltd. and Associated Companies at P.O. Box 96, Kakira, Busoga, Uganda, where he will be pleased to receive trade catalogues.

Mr. Alan Tate, M.C., A.M.T.P.I., A.I.L.A. [*A*], has been appointed Senior Planner to the Federal District Commission and his address is now c/o Federal District Commission, 291 Carling Avenue, Ottawa, Ontario, Canada.

PRACTICES AND PARTNERSHIPS

Architects' Co-Partnership [*FF*] of 44 Charlotte Street, London, W.1, have taken into associate partnership, **Mr. Philip D. B. Groves** [*A*], **Mr. Dennis E. Pugh** [*A*], **Mr. Gordon Redfern,** [*A*], **Mr. Alan K. H. Richards** [*A*] and **Mr. John Smith** [*A* 15252].

Mr. Arthur Cyril Bennett [*F*] has taken **Mr. James Edwin Latham** [*A*] into partnership. The title of the firm will remain **Douglas, Minshull and Co.,** of 6 Abbey Square, Chester.

Mr. A. H. Brotherton [*L*] of **Matley, Brotherton and Mills** has taken **Mr. G. D. Boddington** [*A*] and **Mr. P. V. Rowe** [*A*] into partnership. The name of the firm is now **A. H. Brotherton and Partners,** but the address remains 39, Oxford Road, Manchester 1.

With the retirement of **Mr. R. S. Cobb** [*F*] the firm of **Cobb, Archer and Scammell** has been reorganised. The remaining partners (**H. D. Archer** [*F*], **R. Q. Scammell** [*F*], **A. D. Gaymer** [*A*], **R. Freeman** [*A*], **K. S. King** [*A*] and **G. B. H. Bidwell** [*A*]) have taken **Mr. R. E. Manwaring** [*A*] into partnership. The partners in the various offices are now as follows: **Cobb, Archer and Scammell** (Messrs. Archer, Scammell and Gaymer), Nairobi; **Cobb, Powell and Freeman** (Messrs. Freeman and Manwaring), Kampala; **Cobb, Archer, Scammell and King** (Messrs. King and Bidwell), Mombasa. The firm also practises in Dar-es-Salaam under the name of **Cobb, Archer and Scammell,** and the office there is managed by **Mr. B. C. C. Hook** [*A*].

Mr. George T. Cotton [*A*], **Mr. William F. Homer** [*A*] and **Mr. Duncan N. Matten** [*A*] are now partners in the firm of **Jennings, Homer and Lynch** [*A*/*L*] of 3 and 5, Church Street, Brierley Hill, Staffs (Brierley Hill 7545–6).

Mr. Michael Edmonds [*A*] is now practising on his own account at The Old Bakery, Chelsfield Village, Farnborough, Kent (Orpington 28310), where he will be pleased to receive trade catalogues.

Mr. David Ellis [*A*], is now practising from 25–27 High Street, Old Chesterton, Cambridge (Cambridge 3349) where he will be pleased to receive trade catalogues. The partnership hitherto existing, known as **Ellis and McLeod,** has been dissolved by mutual consent.

Mr. Percy Howard [*F*] has retired from practice and the firm of **Howard and Seddon** of 88 Mosley Street, Manchester 2, will be continued by **Mr. E. G. Seddon** [*A*], under the same name and at the same address.

Messrs. Lynde and Griffin (**R. D. Lynde** [*L*] and **A. H. C. Griffin** [*L*]) of 138 Tachbrook Street, Westminster, London, S.W.1, have dissolved partnership. Mr. Griffin will continue to practise from 44 Cypress Avenue, Whitton, Middlesex (Popesgrove 6074), where he will be pleased to receive trade literature.

Messrs. Pallett and Price (**Edwin Pallett** [*L*] and **R. K. Price** [*A*]) have taken **Mr. A. M. Stegmann** [*A*], **Mr. W. F. Hendry** [*F*] and **Mr. R. C. Brown** [*A*] into partnership. The practice will be continued as **Pallett, Price and Partners,** at 101 Cameron Street, Salisbury, Southern Rhodesia.

Mr. D. Garth Pepperell [*A*] has, by mutual consent, retired from the firm of **George Brown and Partners** [*A*] and has commenced practice at 25 Clare Street, Bristol 1 (Bristol 20967), where he will be pleased to receive manufacturers' literature. Messrs. George Brown and Partners are continuing to practise from Brunel House, College Green, Bristol, 1 (Bristol 26153–4).

Mr. Zbigniew Jan Piet [*A*] has become a partner in the firm of **Westwood, Sons and Partners** [*FF*] of 21 Suffolk Street, London, S.W.1.

Mr. Stanley C. Ramsey [*F*] has retired from partnership in the firm of **Ramsey, Murray, White and Ward** [*F*/*A*], of 32 Wigmore Street, London, W.1, but he will continue to act as a consultant for the time being. The name of the firm will remain unchanged.

Mr. S. P. Ross-Smith [*A*] has terminated his partnership in **Messrs. Gordon and Dey** [*FF*] and commenced practice under his own name at 4 Drumsheugh Gardens, Edinburgh, 3 (Caledonian 6037).

Mr. Ronald D. Salmon [*A*], of 2a Vicarage Gardens, Kensington, London, W.8 (Bayswater 7455), has taken **Mr. S. Rickard** [*A*] and **Mr. J. R. Plincke** [*A*] into partnership. The style of the firm will be **Ronald Salmon and Partners,** but the address will remain unchanged.

Messrs. Sanders and Montague (Maurice Sanders [*F*] and **Henry Montague** [*A*]) of 24 Harley Street, London, W.1, have dissolved their partnership by mutual agreement. Mr. Sanders will continue to practise under his own name from the same address.

Messrs. John J. Turner and G. Cassteels Baker [*AA*] of Rumbolds Hill, Midhurst, have entered into partnership with **Mr. Robert Fisher** [*A*], under the title of **John Turner and Partners.** A branch office has been opened at Linden Chambers, Bognor Regis, Sussex (Bognor Regis 1757).

Mr. Victor Wilkins [*F*] has retired from practice and the practice of **Messrs. Victor Wilkins and Partners** has been transferred to **Messrs. Ronald Ward and Partners** [*F*], 29 Chesham Place, Belgrave Square, London, S.W.1.

CHANGE OF ADDRESS

Messrs. Alison and Hutchison and Partners (R. Forbes Hutchison [*F*], **James Brown** [*A*] and **Stanley G. Owen** [*A*]) have changed their address to 4 Rothesay Terrace, Edinburgh, 3 (Caledonian 6537–8–9). The firm's Schools Section, formerly at Kirkcaldy, will now also be at the Edinburgh address and all correspondence, etc., should be directed there.

Mr. Jeffrey Ellis Aronin [*A*] has opened a new office at 101 Park Avenue, New York, 17, U.S.A. (Murray Hill 6–0915).

Mr. Geoffrey E. Brimilcombe [*A*] has changed his address to c/o Stewart, 6 Merchiston Park, Edinburgh.

Mr. Peter Chapman, A.M.T.P.I. [*A*] has changed his address to c/o Regional Planning Commission, 415 The Arcade, Cleveland 14, Ohio, U.S.A.

Messrs. Hadfield, Cawkwell and Davidson [*F*/*A*] have moved to new offices at 17 Broomgrove Road, Sheffield, 10 (Sheffield 66016–7–8).

Mr. Brian Hepworth [*A*] has changed his address to 24 Cantley Road, Boston Manor, London, W.7. (Ealing 3158).

Mr. G. W. Howell [*A*] has changed his address to 35 Tudor Close, Cheam, Surrey. (Fairlands 6810).

Mr. Antony P. Jackson [*A*] has now been transferred to **Messrs. Mence and Moore's** [*A*/*L*] office at 71 Murray Street, Georgetown, British Guiana, where he will be architect in charge. Trade catalogues will be welcome.

Mr. John Jones [*A* 17664] has changed his address to Flat 2, Buckingham House, Courtlands, Shoppenhangers Road, Maidenhead, Berks.

Mr. D. R. Morrison [*A*] has changed his address to Apt. 1J, 139 East 33rd Street, New York 16, U.S.A.

Mr. Dennis G. C. Myner [*A*] has changed his address to 'Keys', Old Harpenden Road, St. Albans, Herts. His telephone number remains St. Albans 55090.

Messrs. O'Neill and Fordham (Gordon O'Neill [*F*] and **George R. Fordham** [*F*]) have changed their address to 15A Duke Street, Chelmsford, Essex. Their telephone number remains Chelmsford 3004.

Mr. Arthur J. Penberthy [*F*] has changed his address to 40d Bath Road, Wolverhampton. His telephone number remains Wolverhampton 24742.

Mr. Frank Rutter [*F*] of 7 St. Martin's Avenue, Epsom, has opened a branch office at 2 Finchley Road, London, N.W.8 (Primrose 7614), where he will be pleased to receive trade catalogues.

Mr. Maurice William Smith, M.T.P.I. [*A*], who is now working in the Borough Architect's Department, Luton, has changed his address to 21 Moreton Avenue, Harpenden, Herts. (Harpenden 4104).

Messrs. Sparrow and Clater (R. J. Sparrow [*F*] and **F. S. Clater** [*A*]) have changed the address of their Colchester office to 52 North Hill, Colchester (Colchester 3251).

Mrs. Eileen M. Tomlinson (*née* Ingham) [*A*] has changed her address to 'Beechfield', Clifton Marsh, nr. Preston, Lancs.

Mr. Bernard W. Webb [*A*] has changed his address to Consular House, City Square, P.O. Box 9996, Nairobi, Kenya, East Africa.

The office address of **Mr. Merlyn C. Williams,** A.M.T.P.I. [*A*], Federal Architect/Planner, Federation of The West Indies, is Federal Secretariat, 'Whitehall', 29 Maraval Road, Port of Spain, Trinidad, The West Indies.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

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Associate (42) with considerable experience in industrial work, requires position in established practice leading to partnership in north or north-east England. Capital available. Box 42, c/o Secretary, R.I.B.A.

Associate residing in Newcastle upon Tyne would like appointment in that area, leading to partnership in due course. Some capital available. Box 43, c/o Secretary, R.I.B.A.

Associate wishes to dispose of growing practice in rapidly expanding industrial town in the East Midlands. Excellent opportunities for young architect. Box 45, c/o Secretary, R.I.B.A.

Associate, with own practice in Surrey, wishes to meet another member with the object of forming a combined practice, and would consider partnership where incoming member has own practice and contracts, etc. Box 46, c/o Secretary, R.I.B.A.

Associate (34), with administrative experience in general practice, seeks partnership, or position of responsibility with view to partnership, in small established practice in the West Riding. Purchase of practice from principal nearing retirement would be considered. Capital available. Box 48, c/o Secretary R.I.B.A.

Senior Licentiate, in practice on his own, wishes to amalgamate with a firm of London architects on an agreed mutual basis. Box 49, c/o Secretary, R.I.B.A.

Associate, A.M.T.P.I., university trained, experienced in all types of work at home and abroad, at present teaching and running own practice, seeks contact with architects with a view to assisting them in their practice in London and the south of England. Good social background, own office, car and some capital available. Box 50, c/o Secretary, R.I.B.A.

FOR SALE

For Sale. A number of books on architecture, art and allied subjects; mostly modern, in good condition and with dust jackets. Box 44, c/o Secretary, R.I.B.A.

ACCOMMODATION

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MISCELLANEOUS

Mr. J. S. Foster [*F*] will be pleased to receive trade catalogues and literature at 26 Malden Hill Gardens, New Malden, Surrey.

Alfred Young Mayell [*F*] deceased. If the former pupils of Alfred Young Mayell, late of St. James House, 173 Holland Park Avenue, London, W.11, will communicate with Messrs. Rodgers, Gilbert and Horsley, Solicitors, 7–8 Norfolk Street, Strand, London, W.C.2, they will hear of something to their advantage.

Mr. Michael R. Rostron, B.Arch.(L'pool)[*A*], has been awarded a Leverhulme Research Fellowship to study modern cladding techniques and will be pleased to receive trade catalogues and other information on this subject from manufacturers and architects. His address is 8 Castlefields Drive, Charlton Kings, Cheltenham.

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1850

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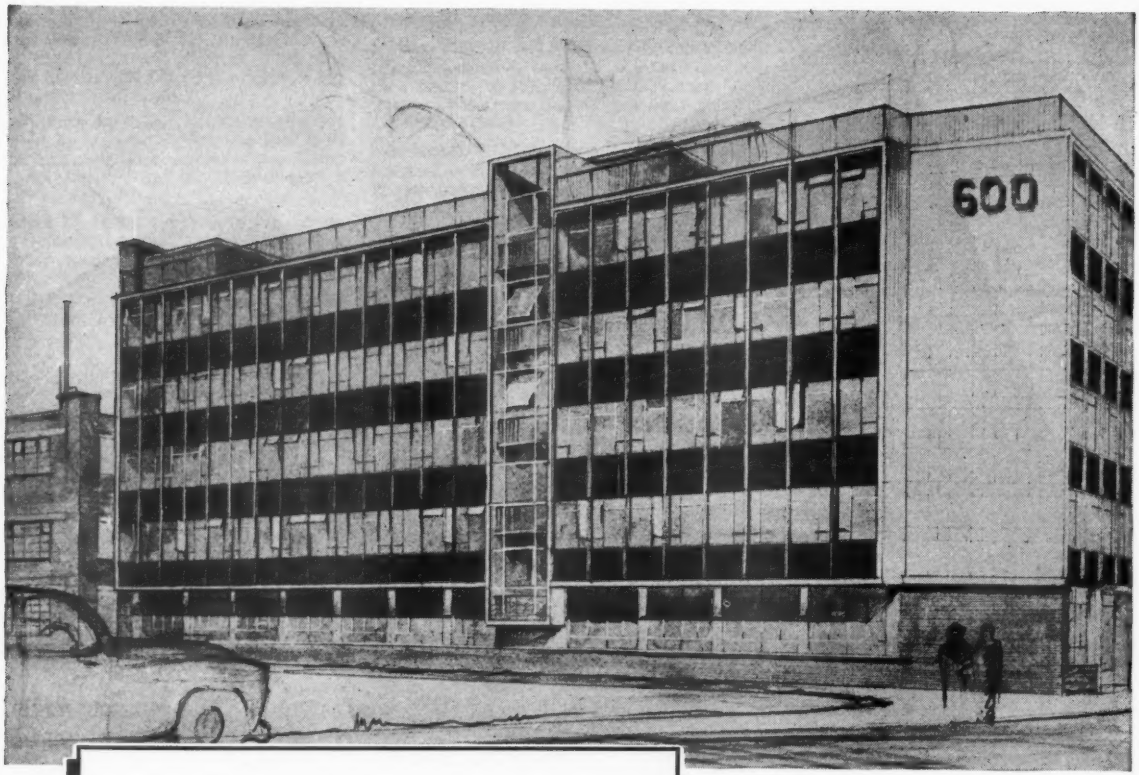

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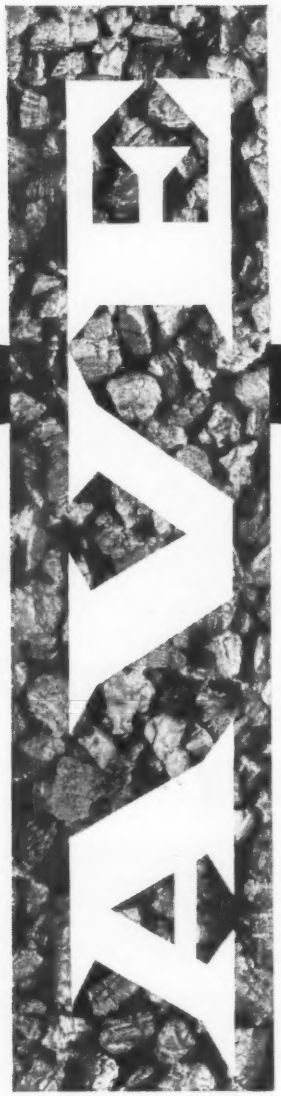

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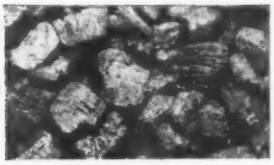

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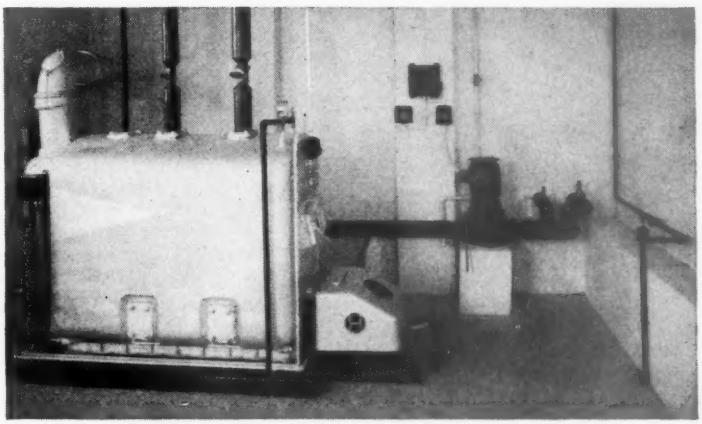

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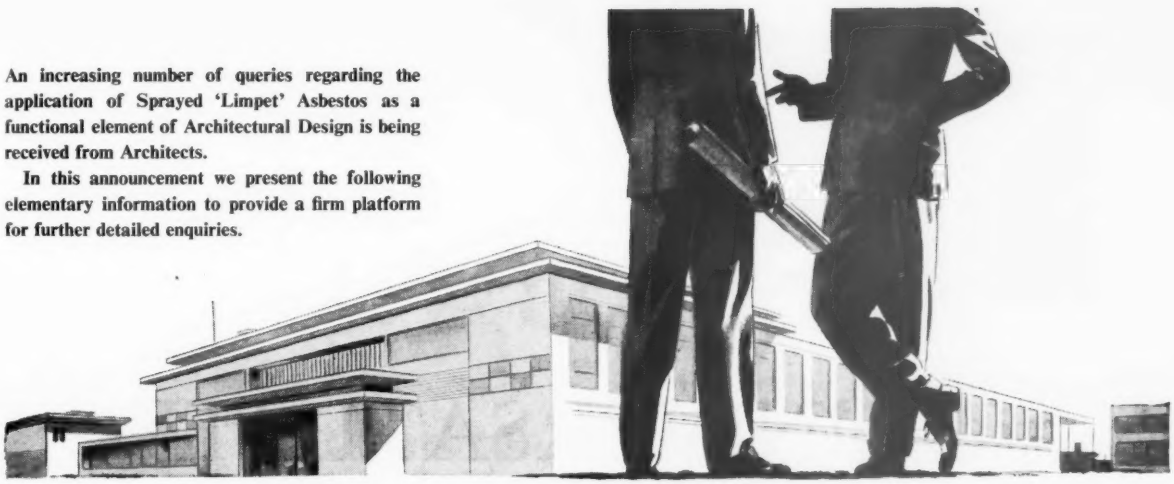
An increasing number of queries regarding the application of Sprayed 'Limpet' Asbestos as a functional element of Architectural Design is being received from Architects.

In this announcement we present the following elementary information to provide a firm platform for further detailed enquiries.



an architect asks questions about Sprayed 'Limpet' Asbestos by NEWALLS

REGD.

"What do you consider is the major advantage of Sprayed 'Limpet' Asbestos?"

Probably the most important element is that the 'Limpet' process gives intimate surface contact, sealing all joints, covering rivets, irregularities and protrusions in a continuous coat that entirely eliminates air spaces—a significant factor in itself.

"I understand that Sprayed 'Limpet' Asbestos has two insulating properties?"

Correct. In addition to providing a high degree of thermal insulation, it is an excellent material for absorbing sound. Indeed, many firms have specified the process for correcting acoustic distortions alone.

"Being largely Asbestos, I suppose the process gives a measure of fire protection?"

Most certainly! Again, it is often used solely because of its fireproofing properties. In fact, this method was the first to be approved for Class A fireproofing of ships under the 1948 Convention.

"Being porous, isn't the treatment liable to premature rotting where condensation exists?"

On the contrary. Asbestos is chemically inert. It is rotproof, verminproof and undamaged by water. Condensation is diffused preventing dripping and allowing for speedy re-evaporation to the atmosphere from the warm surface of the coating.

"It seems too versatile for words. It's a Thermal and Acoustic Insulant, rotproof and verminproof, fire-resistant, prevents condensation, resists vibration... anything else?"

Well. It has been used extensively purely as an anti-corrosion measure on metals subject to severe corrosive conditions, but we'd have to know the particular application you had in mind to give our full recommendations.

"Naturally. And if we did want Thermal and Acoustic Insulation—and Fire protection in one coating—I suppose it would cost the earth?"

Frankly—no. You see, the erection of timber grounds is not necessary. In application there is no cutting to waste, and the density and thickness is controllable to a very fine degree by highly efficient operators. It compares favourably with conventional insulation methods and materials.

Sprayed 'Limpet' Asbestos is a particularly suitable multi-purpose insulant in schools, public buildings and the like. Our considerable experience in this field will be gladly placed at your disposal.

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FIRST, a capacity for rolling the sections already so widely used in this country and, in addition, *sections having broad flanges which are practically parallel in thickness, some of them of great depth.*

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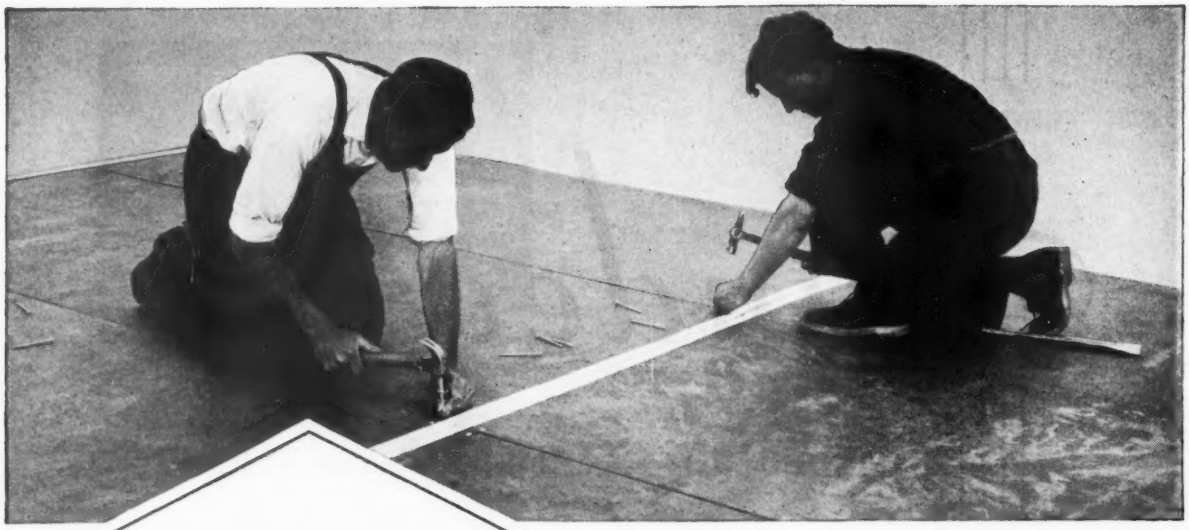

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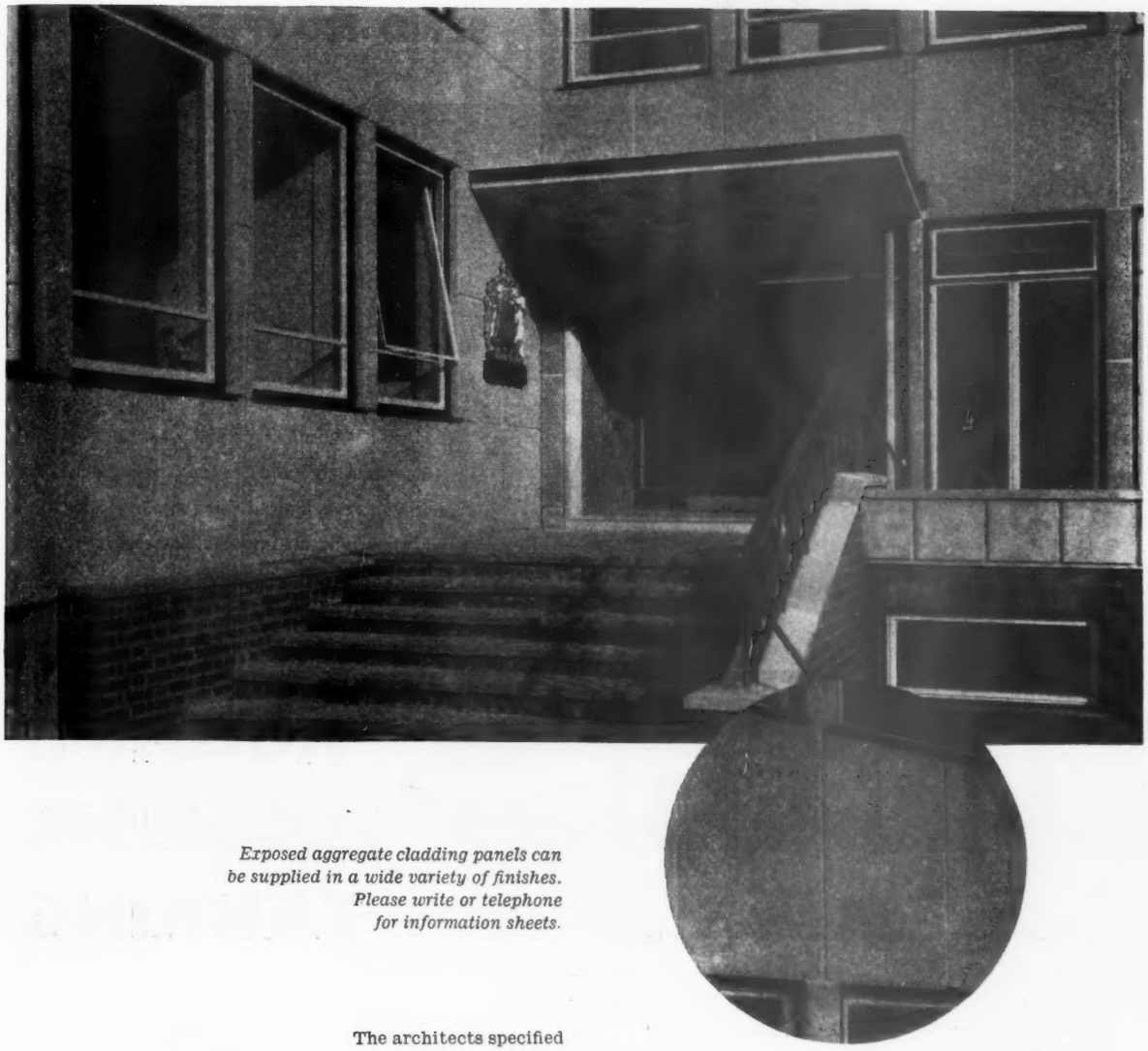

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...ring the Mini... to make regulations to restrict the use of certain materials.

...said that this new clause arose from ...r consideration and consultation on the ... and ... the Bill. There had been ... from the ... Insulation Association and accordingly the new clause empowered the Minister to make regulations excluding the use of materials if they did not conform to the standards of resistance to the spread of flames. Those regulations would specify the particular materials and the particular standards.

Plans deposited with the local authority which showed that restricted materials were being used in a building would be rejected by the authority unless they also showed that the materials were to be used in such a fashion that would not increase the risk of fire breaking out or spreading. The standard of resistance could be that in the British Standards Specification 476 of 1953 which were well known to ... and

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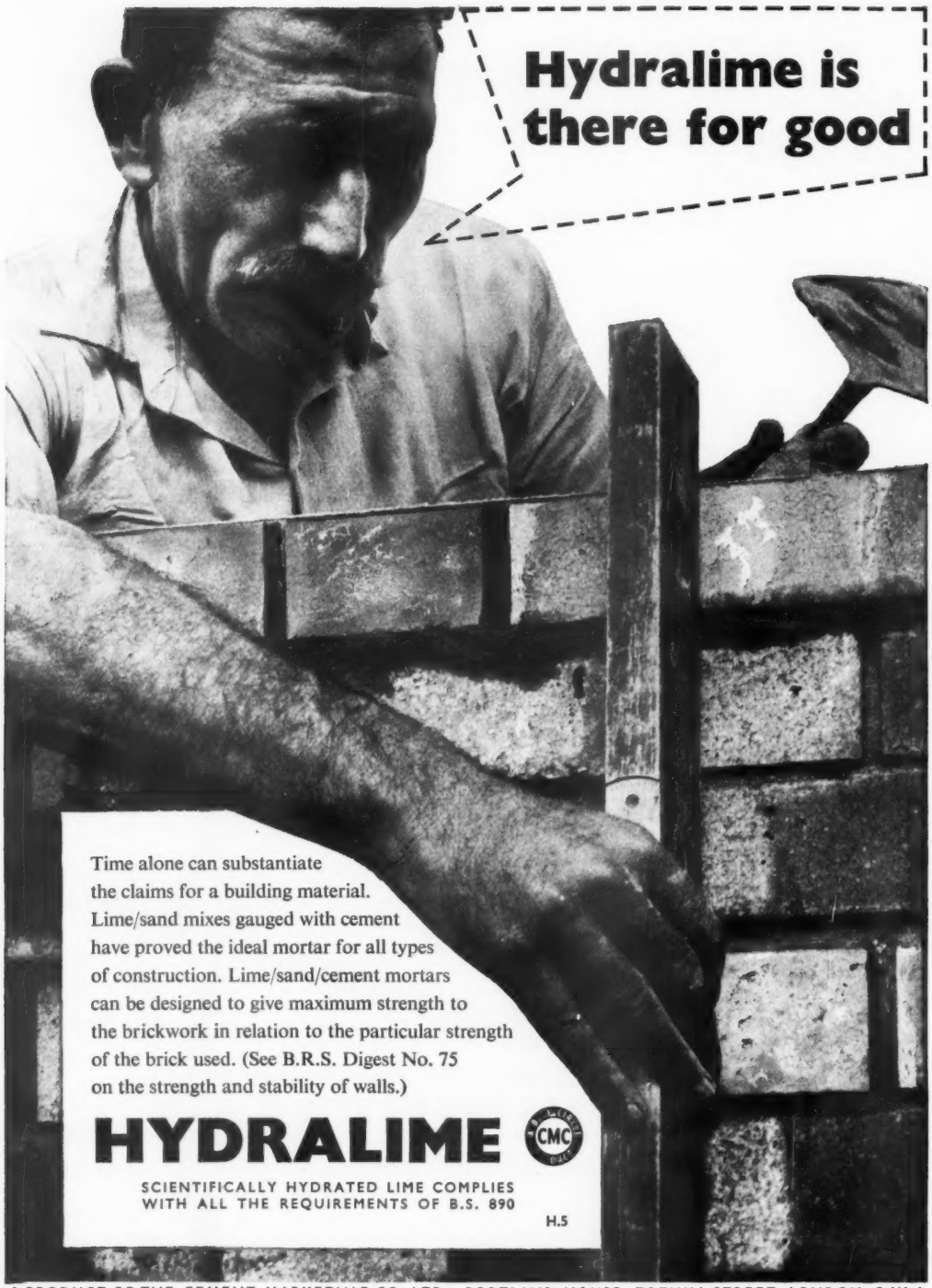
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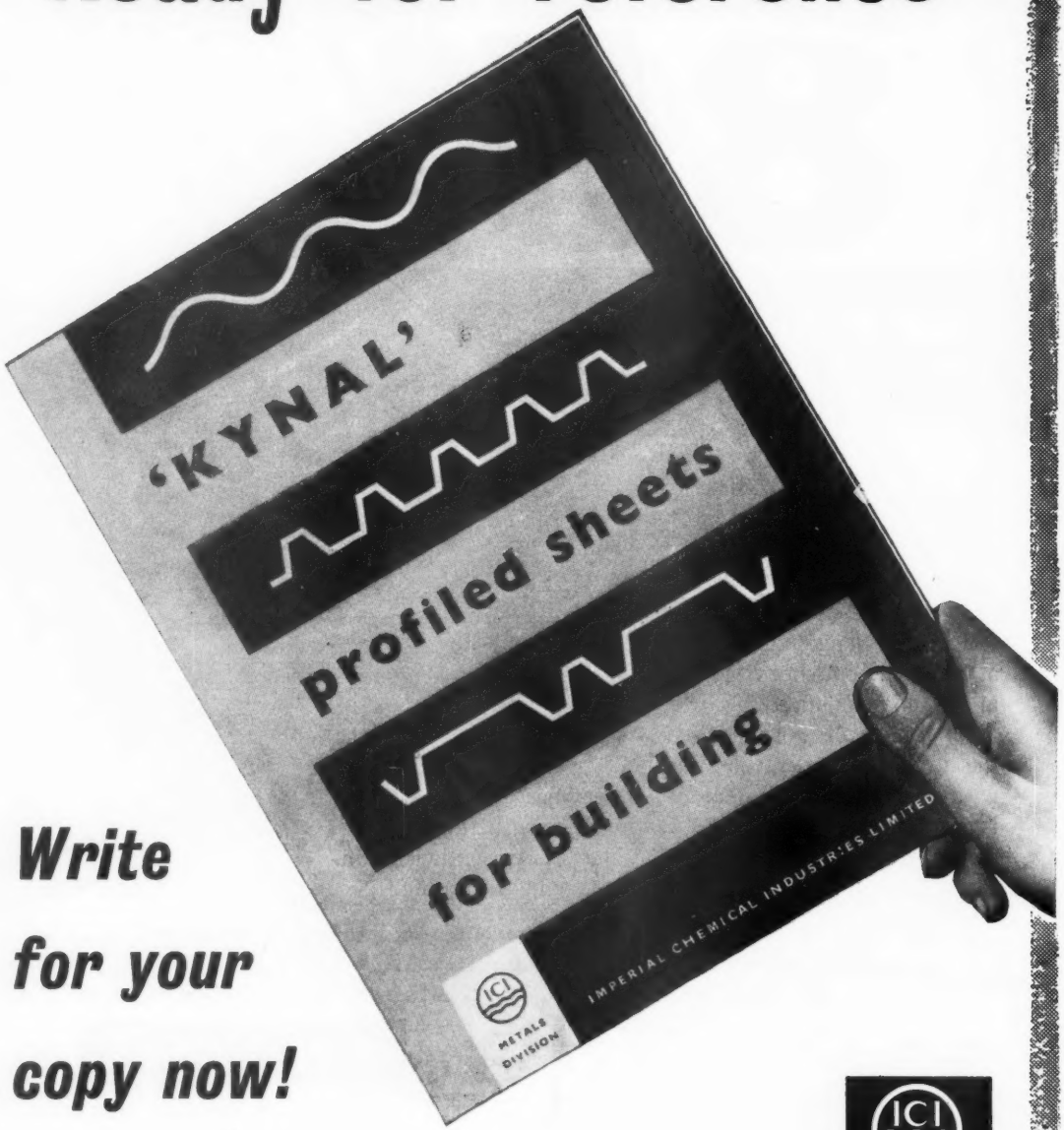

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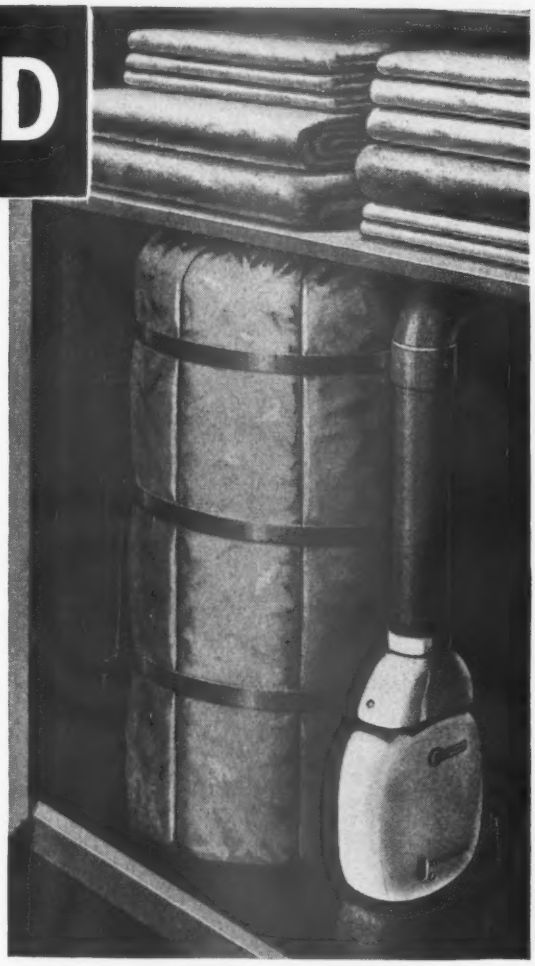

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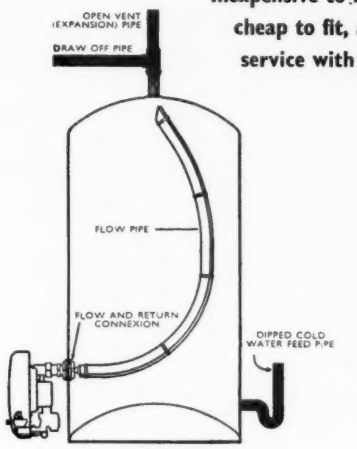

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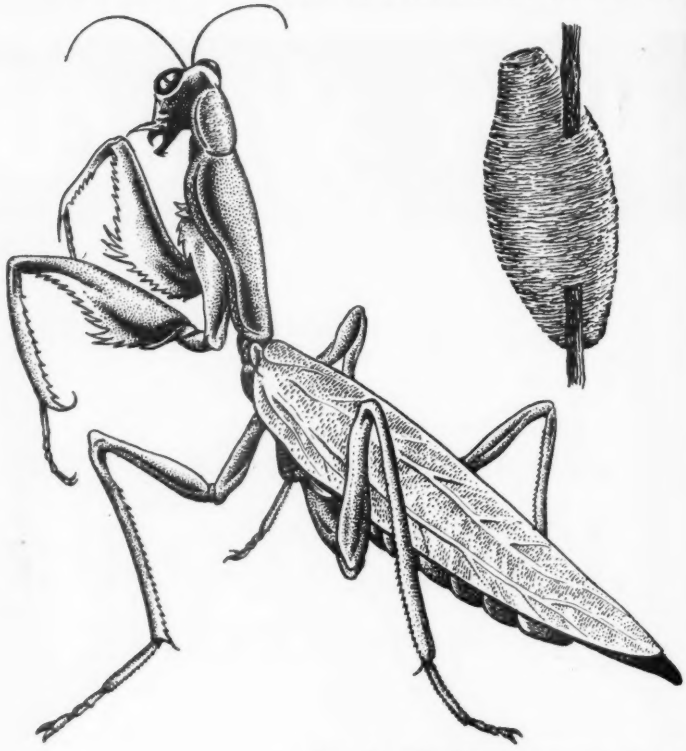

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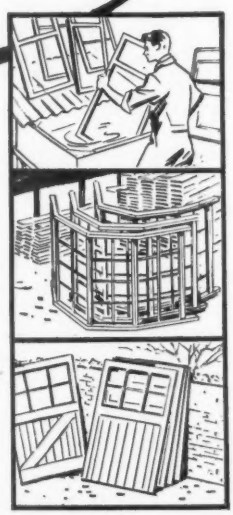

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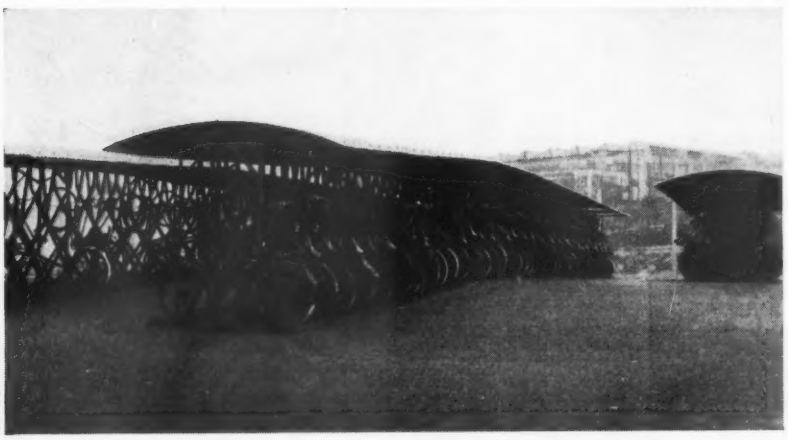

ILLUSTRATION OF TYPE 10
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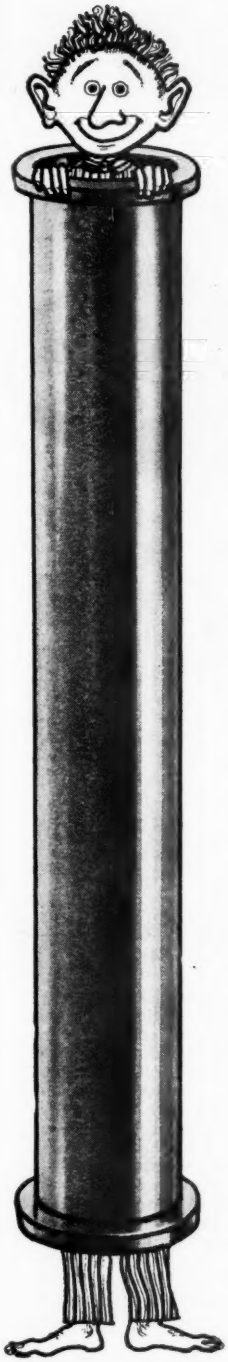

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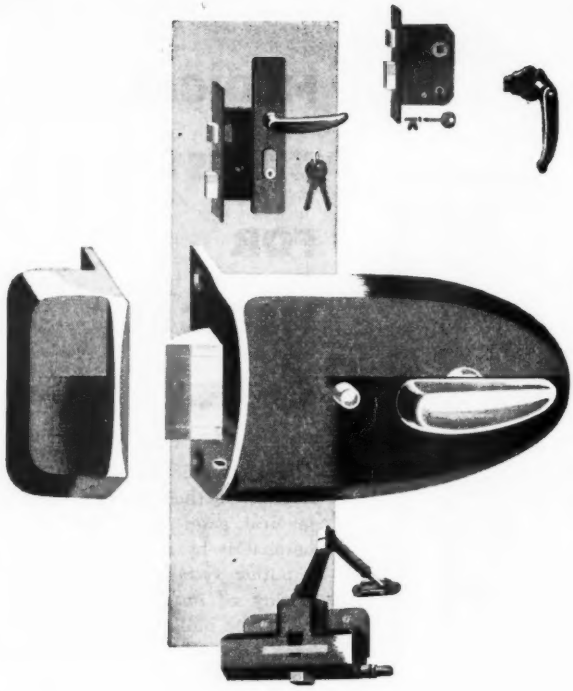

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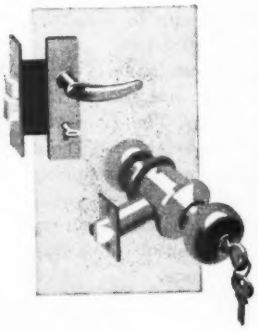

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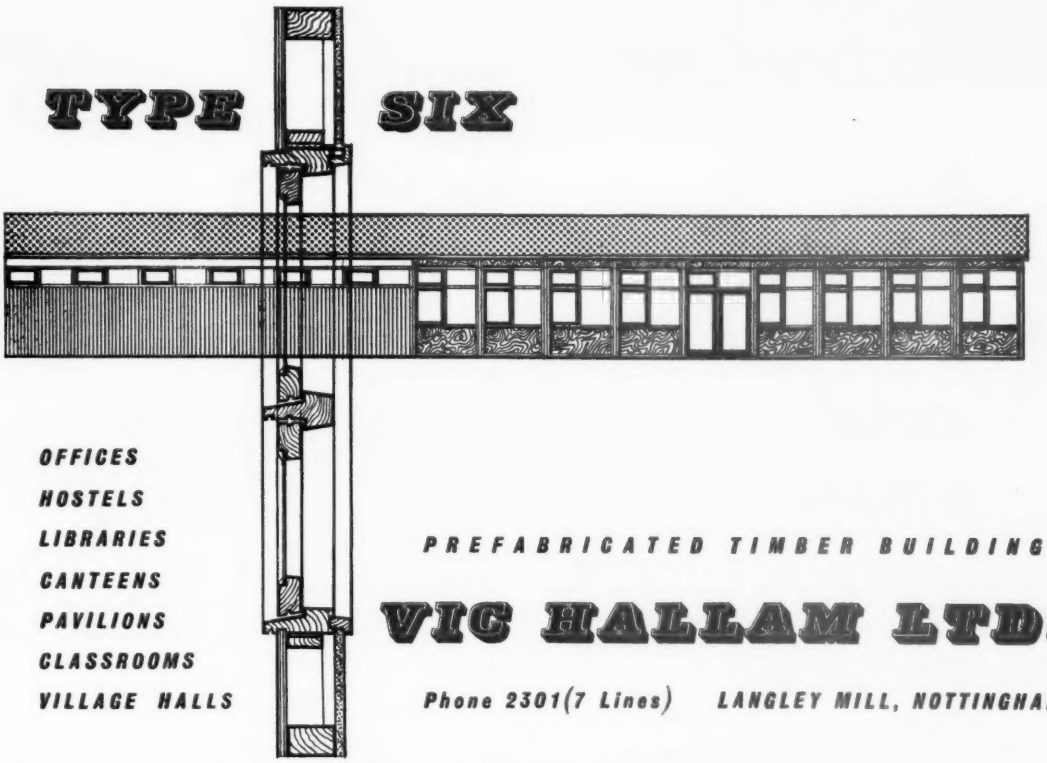

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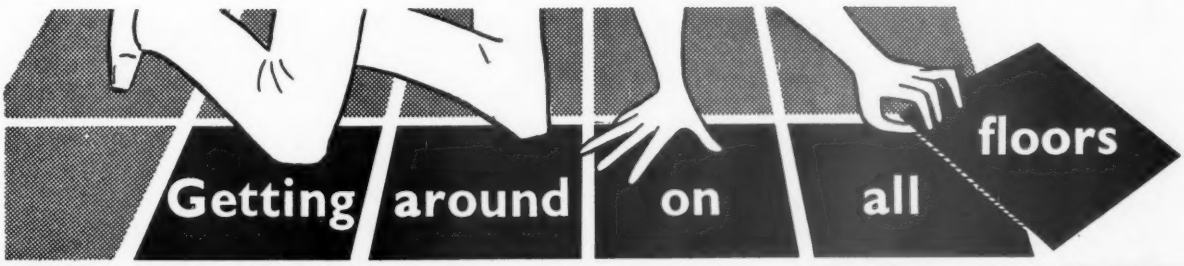

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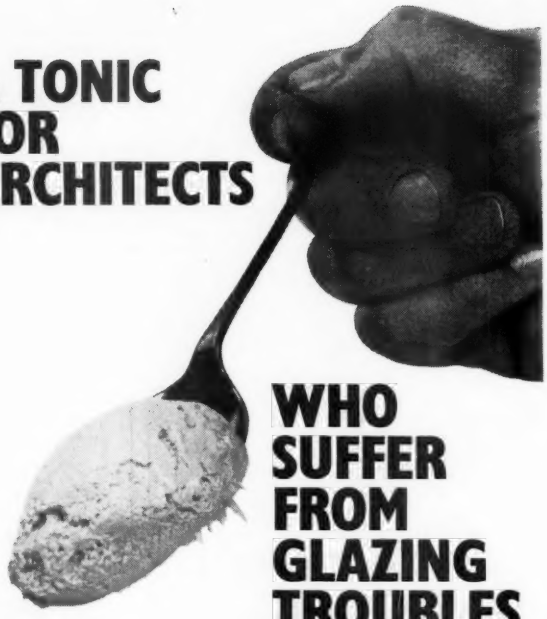

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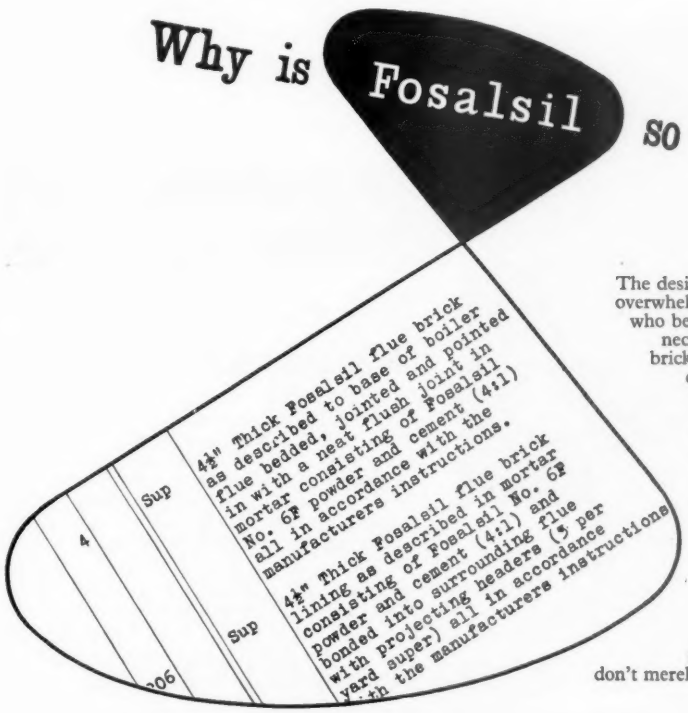
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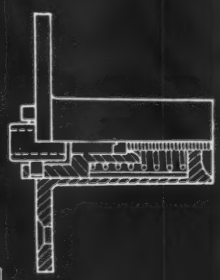

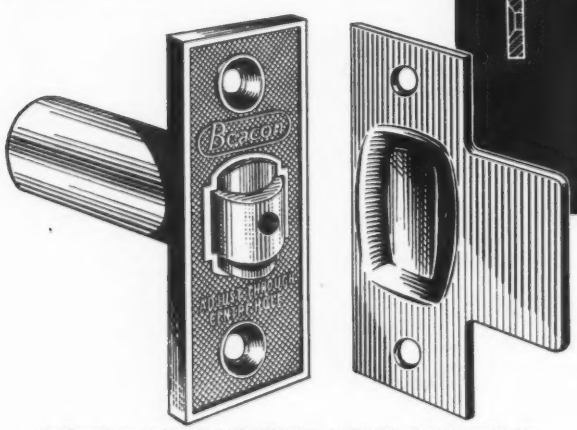

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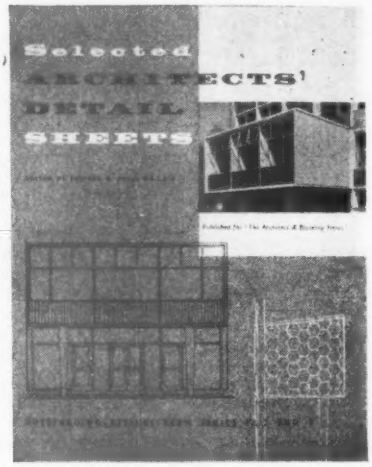

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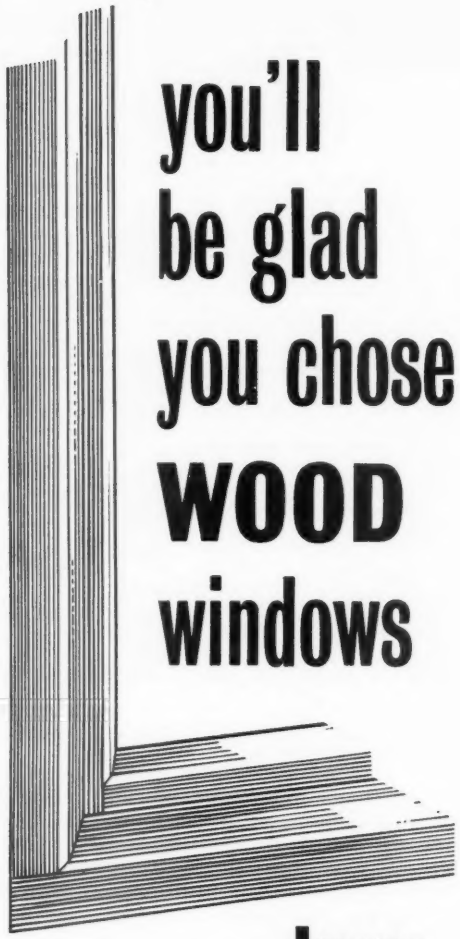

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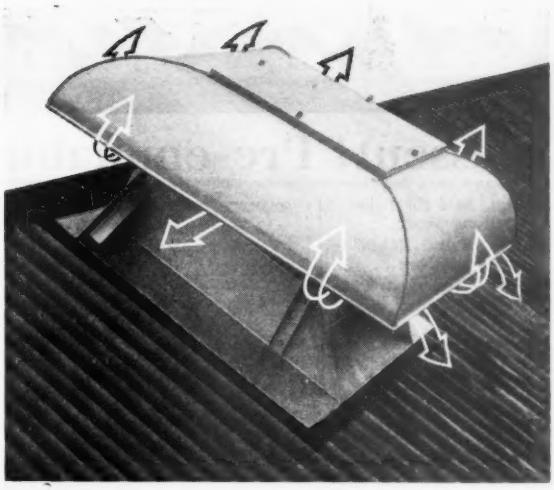

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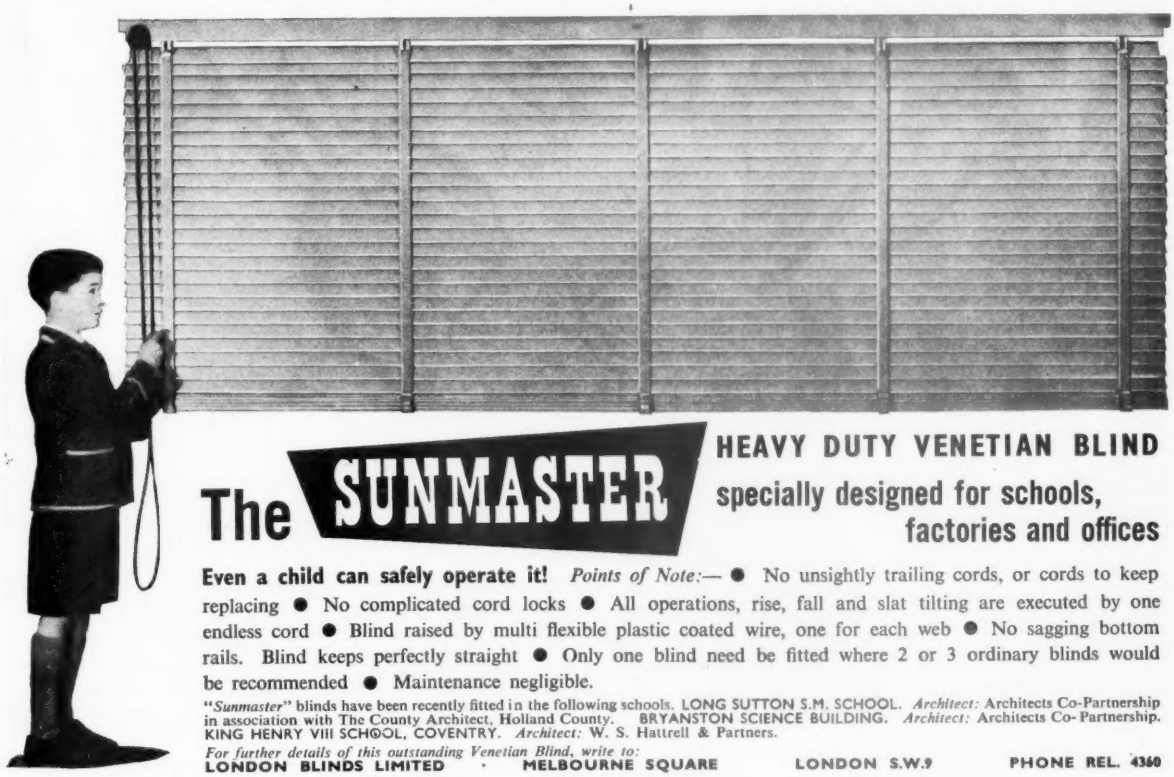

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BUILDING RESEARCH STATION DIGEST 110

May 1958

Corrosion of Non-ferrous Metals: I

THE rusting of iron and steel is familiar and the precautions necessary to prevent such corrosion are well understood and, on the whole, well applied. On the other hand, non-ferrous metals are so much less prone to corrosion under normal atmospheric conditions, that it is wrongly assumed that they may be used without precautions of any kind under the variety of corrosion hazards that may arise in a building. This and the next Digest provide information on the properties of the more common non-ferrous metals, analyse the varied conditions to which the metals may be exposed in a building and suggest protective measures. The more common causes of corrosion of non-ferrous metals are illustrated by examples reported to the Building Research Station. This Digest covers lead and copper. No. 111 will deal with zinc and aluminium and with the use of non-ferrous metals in water systems.

GENERAL

The corrosion of a metal component in a building may have four important effects:

- The structural soundness of the component may be affected.
- The growth of corrosion products on the face of the metal may cause distortion or cracking of other building material in which the metal may be embedded or with which it may be in contact.
- Failure of the component may lead to entry of water into the building.
- Unsightly surfaces may be produced.

The degree to which any metal or alloy will corrode under a given set of conditions will depend primarily on its specific properties, both physical and chemical, but stress produced in the metal in the process of manufacture or application may play some part in corrosion.

The conditions to which a metal may be exposed may be very different, depending on its use, and the actual form and exposure conditions of a detail. Broadly speaking, the following types of exposure may arise:

Exposure to external atmospheres

Here the amount of corrosion will depend mainly on the kind of metal or alloy, the rainfall, temperature, degree of atmospheric pollution, slope of surface and extent of exposure to the prevailing wind and rain.

Exposure to internal atmospheres

Atmospheric pollution will be modified by internal conditions in a building. Thus, in dwelling houses, exposures will be much more severe in the sometimes hot and steamy atmosphere of a kitchen or bathroom than in a dry sitting-room. Condensation may occur in roof spaces or cavity walls. One particularly corrosive "atmosphere," created within the building and having its effect on flue terminals, is that of the flue gases and smoke from the combustion of various types of fuel.

Embedment in or contact with various building materials

Metal components may be embedded in or in contact with a variety of building materials such as mortars, plasters, concrete, floor compositions or wood.

Contact with water containing dissolved acids, alkalis or salts

Inevitably, there are details in building construction that permit rainwater to drip on metal surfaces or to be retained in crevices between metal surfaces or between a metallic and some other surface. All these conditions involve a greater risk of corrosion than where a metal is exposed to the normal action of the weather. The risk of corrosion is increased where water contains dissolved acids, alkalis and salts derived from the atmosphere or from material with which the metal comes into contact. Supply water may also constitute an increased corrosion risk.

Contact between dissimilar metals

It is well known that in the presence of moisture, galvanic (electrolytic) action can occur between two different unprotected metals in contact, causing corrosion of one of them. The extent of the corrosion depends on the metals involved, and will be accentuated if the area of the metal that corrodes is small compared with that of the other metal.

The above shows that it is important to consider all types of exposure and not merely exposure to the external atmosphere. If a building is to be durable and of good appearance, then, apart from the choice of a metal generally suited to its purpose and environment, special attention must be paid to the design of those details where the metal is in contact with other metals or building materials. Failure nearly always occurs in some detail and not in general exposure to the external atmosphere. Corrosion does not occur unless water is present; hence the emphasis above on rain and condensation. Apart from directly entering into corrosive action, however, water can play a further part in releasing or concentrating corrosive agents from building materials; this effect may be particularly important with water introduced during construction. It is important to consider what corrosive agents may be present in building materials.

Portland cement releases alkalis harmful to lead, zinc and aluminium; copper is unaffected. High-alumina cement is much less alkaline and the effects are therefore less marked. High-calcium lime and magnesian lime have only a relatively slight effect on lead and possibly zinc; aluminium may be more severely attacked; copper is unaffected. Gypsum plasters containing salt accelerators (i.e. Keene's, Parian and anhydrous gypsum plaster) may have an acid reaction and will tend, if damp, to corrode any unprotected metalwork. Magnesium oxychloride cement is highly corrosive. Wood is sometimes acid and provides soluble salts. Western red cedar and sometimes Douglas fir among the softwoods, oak and sweet chestnut among the hardwoods may be particularly troublesome. Clay products may contain sulphates of calcium, magnesium and potassium.

Bitumen protection

Repeated reference is made in these two Digests to a protective coating of bitumen. For this purpose, the minimum requirement is one coat of hot bitumen or two thick coats of bituminous paint.

LEAD

Lead has a very long history of useful application. Generally speaking, two kinds of corrosion product may be formed. Under slightly acid conditions in the presence of carbon dioxide and organic acids, such as acetic acid, a whitish basic lead carbonate is produced. Under alkaline conditions, as with lime or cement mortars, a red-coloured lead oxide is formed. Resistance to atmospheric corrosion is very high, following the formation of a protective film of basic lead carbonate or sulphate. Certain conditions of environment or detail may, however, lead to a breakdown of the film or its formation in a non-protective form, as described below.

FIG. 1. Channelling and perforation of lead valley gutters by acid rainwater from roof: upper portion had been covered by the slates

Effect of acid waters from roofs

Reports of corrosion of lead gutters and weatherings are occasionally received, such failures usually being associated with roofs on which algae, moss or lichen is present. These produce organic acids and carbon dioxide which increase the acidity of rainwater running over the roof. The acid rainwater, where it drips from the roof on to lead sheeting, gradually dissolves the lead, producing thinning, grooving and finally perforation. The process is generally very slow, but the effect can ultimately be severe. The retention of moisture at the junction of the lead and the roof slate is probably significant in producing corrosion at the edge. This is an example of what is known as crevice corrosion to which further reference will be made.

Two examples will illustrate the kind of trouble found in practice:

On a building in the country, with a roof of large Welsh slates bearing a considerable growth of vegetation, it was reported that irregular channels occurred along the entire length of a lead gutter. The age is not known. Fig. 1 shows a sample of the affected gutter with typical channelling and perforation, together with a very marked thinning along the edge of the slate.

A country house with lead valley gutters was re-roofed in about 1935 with wood shingles. In 1951 it was reported that the lead was defective. New cedarwood shingles contain acids, which are only slowly washed out by rain. These acids intensify attack which would in any case slowly occur owing to vegetable growth on the roof. The lead has suffered severe channelling and perforation.

Probably the simplest way of avoiding this type of failure is to protect the lead with a good thick bituminous coating extending well underneath the edge of the roof covering.

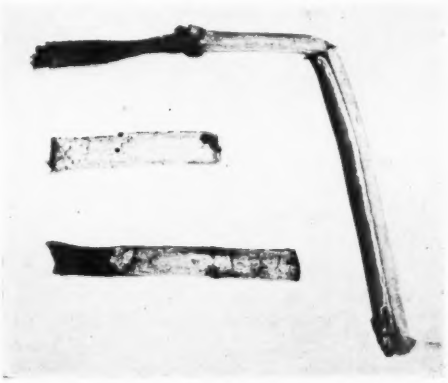

FIG. 2. Corrosion of lead by contact with wood

Effect of acetic acid fumes

Lead is relatively easily corroded by acetic acid fumes even in great dilution. Consequently, in factories such as breweries, pickle factories and saw-mills, where the air will often contain sufficient acetic acid to cause corrosion, the use of lead glazing bars, flashings etc. is best avoided. Complete protection of the lead by a bituminous coating is rarely possible under these circumstances.

Effect of wood

Lead can be badly attacked by contact with wood, as illustrated by three examples shown in Fig. 2 of corrosion of lead-sheath coverings of electric cable in contact with oak or deal. The lead in the middle sample had almost completely corroded away in 35 years. The trouble may be

prevented by using well-seasoned timber, by maintaining dry conditions and by separating the lead from the timber by bitumen felt or paint. It is best to paint the lead completely.

Effect of alkalis

Lead is subject to attack by lime and particularly by Portland cement mortar and concrete. Thorough protection such as a heavy coating of bitumen is called for. A lead damp-proof course laid without protection in the mortar joint of a brick wall may become severely corroded, especially where the brickwork is in an exposed position and is excessively damp. For example, a building was examined recently where a single 3-lb lead damp-proof course, built into a parapet wall at roof level, had shown serious corrosion after 13 years. About four-fifths of the original thickness of the sheet had been converted to hard brittle lead oxide. The trouble was partly due to incorrect design of the wall. There should have been a damp-proof course directly under the coping, and the lower damp-proof course should have been carried slightly beyond the external face of the wall, and also, on the inside face, a few inches over the flat portion of the roof. Nevertheless, it is essential also that lead damp-proof courses should be given an adequate coating of bitumen.

Behaviour in soils.

Buried in soil, lead is usually durable but failure sometimes occurs in made-up ground containing ashes, and in clay soils containing gypsum and perhaps chloride. Even if severe corrosion is rare, the risk is worth eliminating by protecting the buried pipe with a good quality bituminous or other coating.

COPPER

The dominant use of copper in building has been in roofing, but in the last 50 years, and more particularly since the last war, increasing use has been made of copper tubing. Other uses include flashings and weatherings generally, rainwater goods, damp-proof courses and expansion joints in concrete.

Resistance to atmospheric corrosion

Like lead, copper exposed to the atmosphere forms a highly efficient protective film.

The danger of thinking only in terms of simple exposure to the atmosphere can be illustrated by examples of corrosion that have arisen in roofing work.

Effect of acid waters from roofs

The importance of the concentrated effect of water dripping on to copper sheet (cf. channelling of lead) is illustrated by an example of corrosion of a copper roof covering to a dormer window. The copper, which had been in place for about 40 years, was perforated with holes an inch wide, where it received the drips from a clay-tiled roof. The holes were 6 inches apart, and corresponded with the position of the joints in the first course of tiles. The roof faced north-west and was more or less covered with algae, etc., which, as before stated, have the effect of increasing the acidity of rainwater. Fig. 3 shows the perforations under the drip from the lower corners of the tiles. The remedy may be either to provide an easily renewable small gutter to carry drips away from the sheeting, or to protect the sheeting over the vulnerable strip with a coating of bitumen, renewed periodically. This will spread the acid water over a wider area and so reduce the rate of attack considerably.

The intensification of attack caused by acid leached from cedarwood shingles is shown by an instance recently reported of corrosion of a copper sheet valley gutter, 15 ft long, which had been in place for nine years on a roof covered with shingles. The houses concerned were about 1½ miles south of the head of the Solway Firth, but at a point where it was stated that salt spray was noticeable in the air only during south-westerly gales. Corrosion had occurred to the extent of complete perforation of the gutters in long lines coincident with the edge of the shingles.

There appear to be two contributory causes of corrosion in such cases. One is the acidity of the run-off from the cedarwood shingles, the other is the crevice between the shingles and the copper sheet in which electrolytic effects may occur even though only one metal is present.

FIG. 3. Perforation of copper sheet by acid rainwater dripping from roof

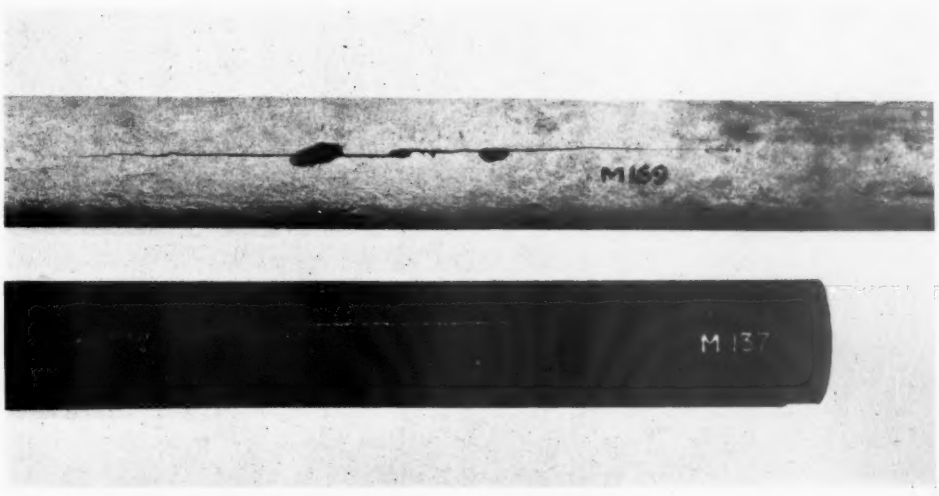

FIG. 4. Stress-corrosion cracking of copper water pipes in foamed cement.

Similar examples of severe attack have recently been examined in a rural area remote from the sea.

This type of "line corrosion" on shingle roofs has been reported to occur in America, but apparently only in sea-coast areas. The insertion of a smooth strip of hardwood between the roofing and the copper sheet, the strip being placed about an inch back so as to avoid the crevice condition, has been suggested as a remedial measure. The Station has no experience of this method; it may well be effective in part, though it would also be desirable to coat the flashing underneath the edge of the shingles with bitumen to protect from the drip effect.

Behaviour of copper tubing

Although copper tubing is generally highly resistant to corrosion by waters there are certain conditions which lead to rapid pitting corrosion or "stress corrosion" cracking. During manufacture, a film may be left on the inner surface and cause some pitting. The user is now safeguarded against this risk by an amendment in the British Standard No. 659, for copper tubing, which requires that the inner surface shall be free from deleterious films. A rare cause of pitting is the formation of films by moorland waters.

Stress-corrosion cracking has been found in a number of district heating schemes where pipes have been insulated by embedding them in foamed cement. There have been repeated failures by longitudinal cracking (Fig. 4). The cause appears to be stress corrosion due to a combination of residual stress in the pipe (apparently produced in manufacture), the use of a foaming agent which releases a small amount of ammonia on mixing with Portland cement, and the use of copper containing very small amounts of phosphorus. It seems necessary to avoid ammonia-producing foaming agents in such circumstances or to use suitably annealed or phosphorus-free copper pipe.

Behaviour as damp-proof course

An experimental copper damp-proof course was laid in brickwork in a laboratory at the Building Research Station in 1934. After 18 years the 24 s.w.g. (0.022 in.) strip was still in good condition except for a slight amount of pitting, the depth of which appeared nowhere to exceed about 0.002 inch—about one tenth of the thickness of the copper. The minimum thickness of copper sheet for use as a damp-proof course material specified in British Standard No. 743 is 33 s.w.g. (0.010 in.); this is much thinner than the material used in the test wall, but there is no evidence to suggest that such sheet is unsatisfactory in practice.

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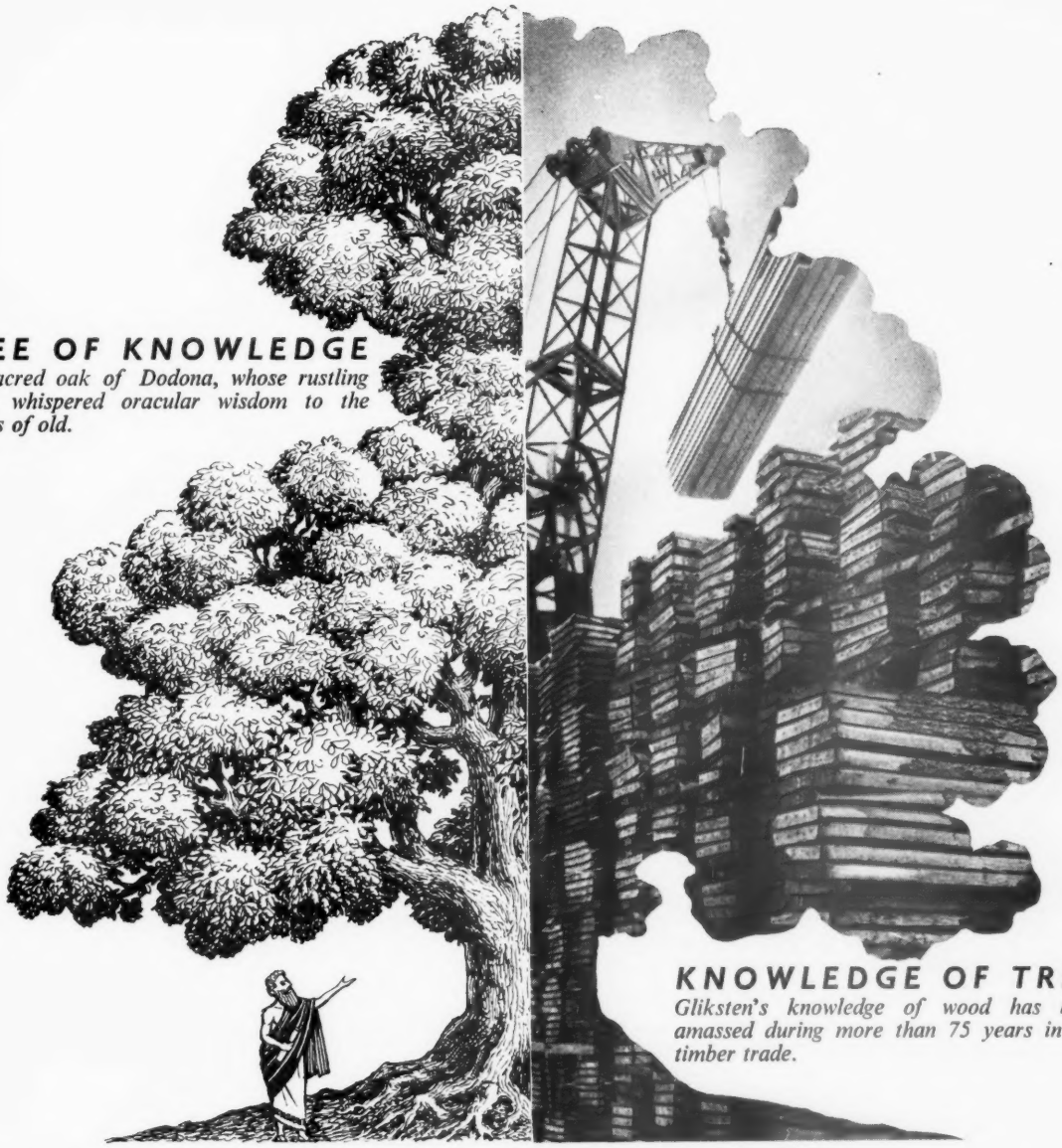

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